

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII**

In the Matter of the Application of)	
)	
HAWAII ELECTRIC LIGHT COMPANY, INC.)	Docket No. 05-0315
)	
For Approval of Rate Increases and)	
Revised Rate Schedules and Rules.)	
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**HELCO
VOLUMINOUS RESPONSES TO
CONSUMER ADVOCATE
INFORMATION REQUESTS**

BOOK 15 OF 15

January 12, 2007



CA-IR-452

Ref: HELCO WP-545, Pages 13 through 21.

HELCO WP-545, Pages 13 through 21, is Power Purchase Agreement and Interconnection Agreement with Encogen Hawaii, L.P.

- a. Please provide all the pages to this agreement including all amendments, attachments and exhibits.
- b. Please provide the definitions and values used to determine the energy charge as shown on HELCO WP-545, Page 17 for the following:
 1. Facility Price;
 2. GDPIPD Current;
 3. GDPIP Base; and
 4. Fuel Component Base.

HELCO Response:

- a. See Attachment 1 to this response for a copy of the Power Purchase Agreement and Interconnection Agreement with Encogen Hawaii, L.P. Attachment 1 is voluminous and is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information. Also attached are the following:
 - Attachment 2 for Amendment No. 1 to the Power Purchase Agreement, dated January 14, 1999;
 - Attachment 3 for the Power Purchase Agreement Novation between Encogen Hawaii, L.P., Hamakua Energy Partners, L.P., and HELCO dated November 8, 1999;
 - Attachment 4 for the Consent and Agreement Concerning Certain Assets of Jones Capital, LLC, by and among Black River Energy, LLC, Hamakua Energy Partners, LP, and HELCO effective on May 26, 2004;

- Attachment 5 for the Consent and Agreement Concerning Certain Assets of TPS Hamakua, Inc. and TPS Hawaii, Inc., by and among BR Landing, LLC, Black River Energy, LLC, Hamakua Energy Partners, L.P., and HELCO effective July 15, 2004;
- Attachment 6 for the Irrevocable Standby Letter of Credit Number SB002748, issued on July 15, 2005, by RBC Centura at the request and for the account of Black River Energy, LLC, to HELCO, the beneficiary;
- Attachment 7 for the Irrevocable Standby Letter of Credit Number SB003149, issued on June 30, 2005, by RBC Centura at the request and for the account of Black River Energy, LLC, to HELCO, the beneficiary;
- Attachment 8 for the Irrevocable Standby Letter of Credit Number SB003150, issued on June 30, 2005, by RBC Centura at the request and for the account of Black River Energy, LLC, to HELCO, the beneficiary;
- Attachment 9 for the Amendment to Consent and Agreement Concerning Certain Assets of Jones Capital, LLC, by and among Black River Energy, LLC, Hamakua Energy Partners, LP, and HELCO dated May 26, 2006;
- Attachment 10 for the Amendment to Guarantee Agreement Between Black River Energy, LLC, and HELCO dated May 26, 2006;
- Attachment 11 for the Amendment to Consent and Agreement Concerning Certain Assets of TPS Hamakua, Inc., and TPS Hawaii, Inc., by and among BR Landing, LLC, Black River Energy, LLC, Hamakua Energy Partners, LP, and HELCO dated May 26, 2006;
- Attachment 12 for the Amendment to Guarantee Agreement Between Black River Energy, LLC and HELCO dated May 26, 2006;

- Attachment 13 for the Amendment to Irrevocable Standby Letter of Credit Number SB003149; and
 - Attachment 14 for the Amendment to Irrevocable Standby Letter of Credit Number SB003150.
- b. 1. The Facility Price is HELCO's total cost of delivered No. 2 fuel oil at Keahole, including all ocean and land transportation charges, demand charges, storage charges, and taxes. Refer to page 17 of HELCO-WP-545 for a full definition of Facility Price and refer to HELCO-402 and confidential HELCO-WP-402 pages 1 and 3 for Keahole fuel oil price.
2. The GDPIPD is used to adjust certain reference year dollar amounts to current year values. The GDPIPD Current is adjusted on January 1 using the previous year's Third Quarter Final GDPIPD value. For the Test Year, the Third Quarter Final 2005 GDPIPD Current is 112.527.
3. The GDPIPD Base is adjusted on January 1 using the previous year's Third Quarter Reference Year 1994 GDPIPD value. For the Test Year, the Third Quarter Final 1994 GDPIPD Base is 90.530.
4. The Fuel Component Base is defined on pages 18 to 20 of HELCO-WP-545. The production simulation model calculates the full fuel component, which includes the fuel component base at the various rates and types of dispatch and load, using Keahole Fuel price and fuel base price, and adjusted for 2% discount.

BEFORE THE PUBLIC UTILITIES COMMISSION
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In the Matter of the Application of)
HAWAII ELECTRIC LIGHT COMPANY, INC.)
For Approval of Power Purchase)
Agreement and Interconnection)
Agreement with Encogen Hawaii, L.P.,)
and for Declaratory Order)

DOCKET NO. 98-0013

APPLICATION

EXHIBITS "A" - "M"

and

CERTIFICATE OF SERVICE

FILED
1998 JAN 16 P 2:53
PUBLIC UTILITIES
COMMISSION

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BEFORE THE PUBLIC UTILITIES COMMISSION
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In the Matter of the Application of)
HAWAII ELECTRIC LIGHT COMPANY, INC.) DOCKET NO. _____
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APPLICATION

TO THE HONORABLE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII:

The Application of Hawaii Electric Light Company, Inc.
("HELCO") shows unto this Honorable Commission as follows:

I. INTRODUCTION

1. Requested Approval Order

HELCO respectfully requests that the Commission:

- (a) approve the Power Purchase Agreement dated October 22, 1997
("PPA"), by and between HELCO and Encogen Hawaii, L.P.
("Encogen"), a copy of which is attached hereto as Exhibit "A",
pursuant to which HELCO intends to purchase electrical energy
and firm capacity from Encogen from a 60 megawatt ("MW") (net¹)

¹ The PPA generally refers to capacity amounts at the
metering point (i.e., to the "net" capacity). Thus, the
capacity amounts referred to in this Application are net
capacities unless otherwise stated. The 60 MW (net)
translates to approximately 62 MW (gross).

dual-train combined cycle ("DTCC") qualifying cogeneration facility located near Haina, Hawaii (the "Facility");

(b) authorize HELCO to include the purchased energy costs (and related revenue taxes that HELCO incurs under the PPA) in HELCO's Energy Cost Adjustment Clause ("ECAC"); (c) find that the purchased power costs to be incurred by HELCO as a result of the PPA are reasonable; (d) approve the inclusion of the power purchase costs incurred by HELCO in its revenue requirements for ratemaking purposes and for the purpose of determining the reasonableness of HELCO's rates during the term of the PPA; (e) find that the buyout and deferral clauses of the PPA are reasonable; (f) find that the purchased power arrangements under the PPA, pursuant to which HELCO purchases energy and firm capacity from Encogen, are prudent and in the public interest; (g) approve the Interconnection Agreement dated October 22, 1997 ("Interconnection Agreement") by and between HELCO and Encogen, a copy of which is attached hereto as Exhibit "B"; and (h) issue a declaratory ruling determining that Encogen will not be deemed to be a "public utility" within the meaning of §269-1, Hawaii Revised Statutes (H.R.S.) in the event that Encogen's combined cycle cogeneration facility loses its qualifying facility status due to simple cycle operation requested by HELCO.

2. Encogen's Facility Will Provide Needed Capacity

a. Pursuant to the PPA, Encogen will design, construct, own, operate and maintain an approximately 60 MW (net) cogeneration facility. The status of the Facility is addressed in Part V, infra.

b. There is no question regarding HELCO's need for additional capacity, which has been recognized by the Commission in a number of dockets. Moreover, the assumptions underlying the calculation of avoided costs for the Facility, including the assumption as to the HELCO generating units that the Facility could defer or displace, were fixed by the Commission in Docket No. 94-0079. Further, the 62 MW (gross) to be provided by the Facility are included in the 20-year Resource Plan identified in HELCO's 1997 Annual Evaluation Report with respect to its Integrated Resource Plan. See Part VI, infra.

c. The Facility will be constructed in two phases. The in-service dates for the two phases are scheduled to follow (by 8 months for Phase 1, and 12 months for Phase 2, subject to extension for force majeure) the receipt of a final Commission decision and order ("D&O") approving the PPA, although an appeal of the D&O would further extend the time Encogen would have in which to begin construction. The PPA provisions affecting the timing of the Facility attempt to take into account the realities of proceeding with a project-financed purchased power project. Although there is some possibility that the installation of the Facility may be delayed beyond 1999, HELCO should be able to maintain an adequate generation margin given its progress in installing its own units. See Part VII, infra.

3. The PPA Prices Are Less Than Avoided Costs

a. HELCO's payments to Encogen for energy and firm capacity will consist of an Energy Charge and a Capacity

Charge. The Energy Charge includes a fuel component, based upon the Facility's guaranteed heat rate efficiency curves and HELCO's Keahole fuel costs, and a variable operations and maintenance ("O&M") component, consisting of a variable component per kwh and an overhaul component per combustion turbine ("CT") operating hour, escalated based on changes in the Gross Domestic Product Implicit Price Deflator ("GDPIPD"). An across-the-board discount of 2% is applicable as compensation for the energy component of avoided transmission line losses. The Capacity Charge consists of a firm capacity component and a fixed O&M component. The capacity component after completion of the combined cycle facility will be equal to the Facility's Firm Capacity (determined pursuant to acceptance tests), minus 2 MW (as compensation for the capacity component of avoided transmission losses), times the capacity rate. The capacity rate is subject to reduction if the Facility is unable to provide at least 54 MW of firm capacity. See Part X, infra.

b. Based on the assumptions underlying the calculation of avoided costs for the Facility, which were examined in Docket No. 94-0079, the PPA costs are estimated to be approximately \$56,000 (on a discounted present value basis) lower than HELCO's avoided costs. The calculation of avoided costs reflects the guidance provided by the Commission in Docket No. 94-0079, as well as in Docket No. 7956. As approved by Order No. 15745, issued August 7, 1997 in Docket No. 94-0079 ("Order 15745"), avoided costs have been determined in accordance with the Settlement Agreement ("Settlement

Agreement") dated June 2, 1997 between HELCO and EDC. As part of the negotiated settlement, the parties agreed that there would be no price adjustment provision in the PPA to account for Selective Catalytic Reduction ("SCR"), but that as part of the request for approval of the PPA, HELCO would include the possible future impact on avoided costs if and when SCR were determined to be Best Available Control Technology ("BACT") for the Keahole DTCC facility by the Hawaii Department of Health ("DOH"). Based on the preliminary SCR cost estimates available in March 1996, avoided costs (on a dpv basis) would increase by about \$17.5 million, or 4.3%, if HELCO were required to implement SCR. See Part XI, infra.

c. Encogen intends to operate its cogeneration facility as a qualifying facility ("QF"). See Part III, infra. Since Federal law and this Commission's avoided cost rules require that HELCO purchase energy and capacity from a QF at a price equal to HELCO's avoided costs, power purchase costs at or below HELCO's avoided costs are, as a matter of law, just and reasonable.

4. The PPA Terms and Conditions Are Reasonable

The PPA contains extensive provisions, negotiated at arms length over an extended period of time (see Part XVII, infra), regarding (i) Encogen's provision of Firm Capacity to HELCO, Part VIII, (ii) Encogen's obligation to meet in-service date deadlines, Part VII, (iii) HELCO's rights to dispatch the energy and capacity from the Facility, Part IX, (iv) design and performance standards for the Facility, including performance

warranties and liquidated damages for failures to meet the warranted performance, Part XII, as well as (v) other contract terms and conditions, including guarantees provided by Encogen's affiliates, Part XIII. The price, terms and conditions of the PPA take into account the guidance provided by the Commission in Docket No. 94-0079.

5. The Interconnection Agreement Is Reasonable

The Interconnection Agreement is consistent with the Commission's avoided costs rules and the D&Os issued by the Commission in Docket No. 94-0079. Encogen is required to pay for the costs incurred to directly interconnect the Facility into HELCO's transmission system, and HELCO is responsible for the modifications to its transmission system in order to ensure interconnected operations with Encogen on a reliable basis (and Encogen is responsible only for that portion of the transmission system modification costs that equals the costs of reconductoring the existing Honokaa-Waimea line). See Part XIV, infra.

6. Encogen Would Not Be a Public Utility

Subject to design and permitting constraints, HELCO generally has the complete right to dispatch the Facility to meet HELCO's system requirements. However, dispatch of the Facility in simple cycle operation for an extended period (which might be required if the steam turbine were unavailable for an extended period) could cause the Facility to lose its QF status. In order to eliminate any uncertainty as to the impact on Encogen under such circumstances, HELCO requests that the

Commission issue a declaratory ruling determining that Encogen would not be a "public utility" under such circumstances, since it would sell all of the power from the Facility to HELCO, and Encogen does not intend to dedicate its facilities to public use. Such a ruling would be consistent with prior Commission rulings.

II. HELCO

1. HELCO, whose principal office is located at 1200 Kilauea Avenue, Hilo, Hawaii 96720, is a corporation duly organized under laws of the Republic of Hawaii on or about December 5, 1894, and is now existing under and by virtue of the laws of the State of Hawaii.

2. HELCO is an operating public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the Island of Hawaii.

III. ENCOGEN

1. Encogen Hawaii, L. P.

a. Encogen is a Hawaii limited partnership, registered to do business in Hawaii.

b. Encogen's general partners are (a) Enserch Development Corporation Hawaii, Inc., a Texas corporation registered to do business in Hawaii, which is a wholly-owned, special-purpose subsidiary of Enserch Development Corporation ("EDC"), a Texas corporation headquartered in Dallas, Texas, and (b) Jones Hamakua, Inc., a Hawaii corporation, which is a wholly-owned, special-purpose subsidiary of Jones Capital

Corporation ("Jones Capital"), a Delaware corporation headquartered in Charlotte, N.C.

c. Encogen's limited partners are EDC and Jones Hawaii Power, Inc., a Hawaii corporation, which is a wholly-owned subsidiary of Jones Capital.

2. EDC

a. EDC is a wholly-owned subsidiary of Enserch Corporation ("Enserch"), a Texas corporation headquartered in Dallas, Texas. According to its Form 10-K for the year ended December 31, 1996 ("1996 10-K"), filed with the U.S. Securities and Exchange Commission, Enserch Corporation ("Enserch") is an integrated company focused on natural gas, and is the successor to a company organized in 1909 for the purpose of providing natural-gas service to North Texas. Enserch's operations include (i) natural gas and oil exploration and production, (ii) natural gas pipeline, processing and marketing, (iii) natural gas distribution, and (iv) developing, financing and operating electric-power generating plants and cogeneration facilities, and developing gas distribution systems in Mexico and South America (through EDC and other subsidiaries).

b. On August 5, 1997, pursuant to an Amended and Restated Agreement and Plan of Merger dated April 13, 1996, Enserch and Texas Utilities Company ("TUC"), a Texas Corporation, were merged into a newly created holding company, whose name was changed to Texas Utilities Company.

c. TUC was organized in 1945 and is a public utility holding company owning two public utility companies

including (i) Texas Utilities Electric Company, an electric utility operating in the North Central, Eastern and Western parts of Texas, and (ii) Southwestern Electric Service Company, an electric utility operating in the Eastern and Central parts of Texas, which together provide utility service to approximately 2.4 million customers.

d. According to the 1996 10-K, EDC develops business opportunities primarily in the areas of independent power, including cogeneration. EDC has completed the development of three cogeneration plants, including (i) a 255 MW plant in Sweetwater, Texas, that began operation in 1989, (ii) a 62 MW natural gas-fired cogeneration facility in Buffalo, N.Y. that was completed in 1992, and (iii) a 160 MW plant in Bellingham, Washington, that began commercial operation in 1993. At the end of 1996, EDC, through its wholly owned subsidiary Enserch International Ltd., had two international projects (in which it owned a partial interest) in the construction and drilling phase, including (i) a 36 MW coal-fired cogeneration facility in Zhejiang Province in China, and (ii) a 300-400 MW geothermal power plant in Java, Indonesia (in which EDC subsequently sold its interests).

3. Jones Capital Corporation

a. Jones Capital is the project development and investment arm of, and is a wholly owned subsidiary of, J.A. Jones, Inc., a Delaware corporation also headquartered in Charlotte, N.C. J.A. Jones, Inc. is owned by Philipp Holzmann USA, Inc., which in turn is owned by Philipp Holzmann AG, a

major international construction company headquartered in Frankfurt, Germany.

b. Jones Capital has been lead developer or co-developer on a variety of power, infrastructure and special-purpose projects. Jones Capital successfully completed the development of two cogeneration projects, including (i) a 50 MW coal-fired cogeneration plant on the Fort Drum Army base near Watertown, N.Y., which began operation in 1989, and (ii) a 150 MW natural gas-fired facility in Milford, Massachusetts, that was completed in 1991. In addition, Jones Capital has developed and owns three special-purpose projects, including (i) a 2.5 million ton/year lignite mining operation near Mansfield, Louisiana, (ii) a 53,000 square-foot data processing facility for the U.S. Bureau of the Census located in Charlotte, N.C., and (iii) a 283,000 square-foot air cargo handling facility at Washington D.C.'s Dulles Airport.

c. J. A. Jones, Inc. is a 107-year old construction organization with expertise in power, industrial, process, heavy, civil and commercial construction projects. Over the past five years, J. A. Jones, Inc. has been the contractor on more than 70 energy projects, representing more than 4,000 MW of energy-generating facilities.

4. Qualifying Facility

a. As stated in the preamble to the PPA, Encogen intends to operate its facility as a Qualifying Facility ("QF") as defined in the Public Utility Regulatory Policies Act of 1978, as amended ("PURPA"), the rules of the Federal Energy

Regulatory Commission ("FERC"), as codified in Part 292, Title 18 of the Code of Federal Regulations, and in the Commission's Standards for Small Power Production and Cogeneration in the State of Hawaii, as codified in Chapter 74, Title 6 of the Hawaii Administrative Rules ("H.A.R.") (the Commission's "avoided cost rules").

b. A Notice of Self Certification of Qualifying Facility ("FERC Notice") was filed with FERC for the facility on March 21, 1994. At that time, the name of the applicant was Enserch Development Corporation Hamakua, Inc. An updated FERC Notice was filed by Encogen on December 1, 1997. A copy of the updated FERC Notice is attached hereto as Exhibit "C".

c. According to the updated FERC Notice, the Facility will sequentially produce electric energy for sale to HELCO and process heat for sale to Acquatic Culture and Design ("Acquatic") for commercial use in its aquaculture facility, and for sale to Hamakua Macadamia Nut Co. Inc. for use in drying macadamia nuts. The updated FERC Notice provides that approximately 700 gallons per minute of water will be pumped from wells at 65°, heated to approximately 90° by the process steam/circulating water from the Facility (using approximately 8.8 MMBtu/hr of thermal energy output), and then pumped to the aquaculture facility for use in raising fish. Approximately 9.0 MMBtu/hr of thermal energy output from the Facility in the form of heated air will be directed to the adjacent macadamia nut facility for use in the nut dryers.

d. Under the PPA, Encogen is required to provide HELCO with a copy of the Thermal Energy Sales Contract ("redacted to delete any confidential or proprietary information"), or a certificate to the effect that such contract will provide for, at a minimum, useful, thermal energy sales under normal operating conditions that are adequate to maintain the Facility as a QF. Encogen is not permitted to modify the Thermal Energy Sales Contract in a manner that would materially adversely impact its ability to perform its obligations under the PPA. PPA §23.11, 2.3A(2)(i).

e. With respect to the maintenance of its QF status, Encogen must use its reasonable best efforts to be in compliance with the criteria for QFs following the Phase 2 In-Service Date, except to the extent HELCO requests that the Facility operate in a manner that would jeopardize its QF status (e.g., in extended simple cycle operation). Loss of QF status will not affect the PPA prices or the parties' obligations under the PPA. However, if Encogen is able to deliver additional capacity to HELCO as a result of its loss of QF status, HELCO has the option to purchase the additional capacity at a discount of 25% from the PPA capacity rates. In addition, if Encogen is able to realize cost savings resulting from a reduction or elimination of thermal energy deliveries as a result of its loss of QF status, Encogen must provide HELCO with a rebate of 50% of the savings realized by Encogen. PPA §3.2L.

IV. CORRESPONDENCE AND COMMUNICATIONS

1. Correspondence and communications in regard to this Application should be addressed to:

Warren H.W. Lee
President
Hawaii Electric Light Company, Inc.
P. O. Box 1027
Hilo, Hawaii 96721-1027

2. Copies of such correspondence and communications should be sent to:

Edward Y. Hirata
Vice President, Regulatory Affairs
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840

and

Thomas W. Williams, Jr., Esq.
Peter Y. Kikuta, Esq.
Goodsill Anderson Quinn & Stifel
Alii Place, Suite 1800
1099 Alakea Street
Honolulu, Hawaii 96813

V. ENCOGEN FACILITY

1. Facility

a. Pursuant to the PPA, Encogen will design, construct, own, operate, and maintain an approximately 60 MW (net) cogeneration facility (the "Facility") to produce electricity and thermal energy. The Facility employs two combustion turbines, two heat recovery steam generators, and a steam turbine in combined cycle mode. PPA §2.1, Att. D.

b. According to Encogen, Encogen and its potential engineer/constructor are in active discussions with equipment suppliers. Encogen has indicated that no problems are anticipated.

2. Site

a. The site for the Facility will be located at Haina, Hawaii. PPA §2.1C. The location and Facility layout are more particularly described in Attachment F to the PPA.

b. Enserch Development Corporation Hamakua, Inc., a Texas corporation and an affiliate of Encogen, purchased the Facility site and other property on July 30, 1997.

c. Encogen's Special Use Permit for construction and operation of a cogeneration plant on agricultural district land issued by the County of Hawaii Planning Commission was final on August 24, 1997. Building permits will be applied for when design is complete and construction is imminent.

3. Fuel

a. As proposed by Encogen, the combustion turbine generators will be fired primarily on naphtha, with 0.05% sulfur diesel fuel being burned during startup. Under its draft Prevention of Significant Deterioration ("PSD")/Covered Source Permit ("air permit"), Encogen also may use 0.05% sulfur diesel fuel or gasoline as alternate fuels. Under the PPA, Encogen is responsible for acquiring, transporting and storing adequate supplies of fuel used in the operation of the Facility.

b. Encogen has indicated to HELCO that Encogen has negotiated a long-term fuel supply agreement, which allows it to purchase up to 4,500,000 MMBtu of fuels meeting a defined quality standard each year during the term of the agreement. Encogen provides the supplier with weekly nominations for

delivery of such volumes of fuels as Encogen requires to operate the cogeneration plant. The fuels are made available for delivery by supplier to Encogen under the agreement at the supplier's dedicated storage facilities in Hilo, Hawaii. Supplier is responsible for all transportation (ocean or land) required to deliver the fuels to supplier's storage facility. Encogen is responsible for transportation of the fuels from supplier's storage facility to the cogeneration plant. Encogen's transportation of fuels will be accomplished by tank truck over existing roads.

4. Operations and Maintenance Contractor

EDC has indicated that Encogen plans to contract with Lone Star Energy, a division of Enserch, for operations and maintenance services. Immediately prior to its merger with TUC (and as a condition of the merger agreement), Enserch spun off to its shareholders, in a tax free distribution, the stock in Lone Star Energy Plant Operations, Inc. ("LSEPO"), along with its interest in Enserch Exploration, Inc. LSEPO operated and maintained the three cogeneration facilities that EDC developed in the U.S. EDC maintains that the organization, management and quality of Lone Star Energy remain the same as they were before the spinoff of LSEPO, but that Lone Star Energy's experience base has expanded now that it is part of the Texas Utilities Company organization, which has over 20,000 MW of plants in operation.

5. Waste Handling and Emissions

a. Encogen is responsible for the handling and proper disposal of any waste products produced by the Facility and for the control and consequences of any emissions produced as a result of operation of the Facility. PPA §§3.2(G), (H).

b. DOH issued a draft air permit and held a hearing for public comment on May 8, 1997. DOH transmitted the comments to Encogen for response. Encogen met with the DOH for the purpose of delivering and discussing the responses to the comments on October 24, 1997. DOH is currently preparing its responses for presentation to the EPA, as well as drafting the final permit. According to its draft air permit, the Facility will include a combustor water injection system, which will be operated in simple cycle and combined cycle modes, and a SCR system (with ammonia injection), which will be operated in combined cycle mode.

6. Community Benefits

According to Encogen, the operation and maintenance of the project will provide 20 to 25 permanent jobs at the plant. Additionally, goods and services will be purchased locally. The thermal users are expected to generate 20 to 30 employment opportunities initially, which number may rise significantly as operations grow and additional tenants move on site. During the construction phase, as many as 100 to 200 workers may be employed at the peak of construction.

VI. NEED FOR CAPACITY

1. Capacity Need

a. There is no question regarding HELCO's need for additional capacity. As stated by the Commission in Docket No. 7956, "HELCO's critical need for additional capacity to meet its load requirements is unquestioned, and clearly, the primary consideration is to have the next generation unit on-line as quickly as possible." Order No. 14502 (January 24, 1996), Docket No. 7956, at 4; see Decision and Order No. 15053 (October 4, 1996), Docket No. 94-0079, at 31.

b. HELCO's need for additional generating capacity has been identified in a number of dockets. In Docket No. 7048, the Commission recognized HELCO's need for additional capacity in the 1994-1995 timeframe. Decision and Order No. 13050 (January 21, 1994), Docket No. 7048. In Docket No. 7623, the Commission recognized the need for additional generation in the 1996-1997 timeframe. Decision and Order No. 14284 (September 22, 1995), Docket No. 7623. In addition, in Docket No. 7259, the Commission approved HELCO's supply-side resource plan, which included 56 MW (net) of generating capacity to be added by the end of 1997, with additional generation to be added in subsequent years. Decision and Order No. 14708 (May 29, 1996), Docket No. 7259.

c. As has been indicated in the generation expansion plans filed by HELCO in (i) the dockets arising out of its request for approval to commit funds for the Keahole generation additions, (ii) the dockets commenced at the request

of qualifying facilities seeking to enter into power purchase agreements with HELCO, (iii) HELCO's Integrated Resource Planning ("IRP") proceeding, and (iv) the contingency planning docket initiated by the Commission, HELCO will require the need for additional generation in the 1999 timeframe, even if a dual-train combined cycle unit is completed at either Keahole or at Hamakua. The generation resource addition and retirement plans ("generation resource plans") used in the calculation of avoided costs for the Encogen Facility, include the addition of CTs in 1999 and 2001 following the completion of the Encogen Facility. HELCO's biennial Electric Utility System Cost Data filing (July 1, 1996) also shows the addition of CTs in 1999 and 2001 after the completion of a DTCC facility. See also HELCO's Adequacy of Supply (January 31, 1997), Att. 3.

2. Avoided Cost Resource Plans

The assumptions underlying the calculation of avoided costs for the Facility were fixed by the Commission pursuant to Order No. 15187, issued November 25, 1996 in Docket No. 94-0079 ("Order No. 15187"). In accordance with that Order, the calculation of avoided costs was based on assumptions and calculations as of the date of D&O 15053, except to the extent necessary to comply with D&O 15053. Order 15187 at 3-4. Pursuant to the guidance provided by the Commission in Order 14502, one of the assumptions underlying the avoided cost

calculation was the assumption that the Encogen Facility would be able to displace the Keahole DTCC facility planned by HELCO.²

3. IRP Plan

a. The 62 MW (gross) to be provided by the Encogen Facility have now been included in the 20-year Resource Plan identified in HELCO's 1997 Annual Evaluation Report filed June 30, 1997 in Docket No. 7259 with respect to HELCO's Integrated Resource Plan (1994-2013) ("IRP Plan"). A copy of the 20-year Resource Plan is attached hereto as Exhibit "D". 1997 Annual Evaluation Report, Figure 1.3.1-2. The estimated peak loads shown in the 20-year Resource Plan, as reduced to reflect the estimated impact of demand-side management programs, reflect the lower peaks in HELCO's January 31, 1996 long-term and January 17, 1997 short-term load forecasts, which do not alter the near-term need for a large increment of new capacity.

b. As stated in the 1997 Annual Evaluation Report, HELCO intends to continue with the installation of the first two phases of its DTCC facility, including CT-4, a 20 MW CT, and CT-5, a second 20 MW CT. However, HELCO's plans for the installation of CT-4 and CT-5 are beyond the scope of this application. See, e.g., Order 15745.

² Pursuant to the guidance provided in Decision and Order No. 14030, issued July 31, 1995 in Docket No. 7956 ("D&O 14030"), the calculation of avoided costs for the Encogen Facility done in August 1995 had assumed that Encogen could defer the Keahole DTCC Facility.

VII. TIMING OF CAPACITY ADDITION

1. Phased Installation

The Facility will be constructed in two phases. Phase 1 is intended to be placed in commercial operation prior to Phase 2 and will consist of a single CT. Phase 2 will consist of two CTs, and the steam turbine ("ST") and related equipment to complete the DTCC facility. PPA §2.1A. The capacity to be provided during Phase 1 is anticipated to be 22 MW, while the capacity anticipated to be provided during Phase 2 is 60 MW (net).

2. In-Service Date Deadlines

The PPA establishes deadlines for the installation of Phase 1 and Phase 2 ("In-Service Date Deadlines"), which generally are tied to the "PUC Approval Date", as defined in PPA §2.2F. PPA §3.2A(3). The Phase 1 In-Service Date Deadline is 14 months after the PPA execution date (which was October 22, 1997) or 8 months after the PUC Approval Date, whichever is later, and the Phase 2 In-Service Date Deadline is 18 months after the PPA execution date or 12 months after the PUC Approval Date, whichever is later, unless either deadline is extended as a result of Force Majeure.

3. Force Majeure

The definition of Force Majeure is set forth in PPA §15.1. Force Majeure includes delays in the issuance of Encogen's permits, including the air permit, except to the extent such delays are the result of Encogen's fault or negligence. The In-Service Date Deadlines are extended on a

day-for-day basis until the end of a Force Majeure event, but an In-Service Date Deadline may not be extended for more than 9 months in the case of a single event or 12 months in the case of more than one event. PPA §15.3.

4. PUC Approval Date

a. If the Commission does not issue a decision and order approving this application ("PUC Approval Order") within 12 months of the date of its submission (the "PUC Submittal Date"), subject to the exceptions for partial or conditional approval of the PPA in PPA §§2.2D, 2.2E, either HELCO or Encogen may declare the PPA to be null and void. PPA §2.2B.

b. If the PUC Approval Order is not made subject to a motion for reconsideration or an appeal, the PUC Approval Date is 30 days after the issuance date of the Order.

c. If the PUC Approval Order becomes subject to a motion for reconsideration, and the motion is denied or the order is affirmed after reconsideration, and the order is not made subject to an appeal, the PUC Approval Date will be the issuance date of the order denying reconsideration of or affirming the PUC Approval Order.

d. If the PUC Approval Order (or an order denying reconsideration of the order or affirming approval of the order after reconsideration) becomes subject to an appeal, then the PUC Approval Date will be the earlier of (i) the date upon which it becomes a Non-Appealable PUC Approval Order (i.e., an order that is not subject to appeal or is not subject to

further appeal after being affirmed), or (ii) the date 24 months following the PUC Submittal Date. PPA §2.2F(4). If a Non-Appealable PUC Approval Order is not obtained within 24 months from the PUC Submittal Date, Encogen may declare the PPA to be null and void. If Encogen does not elect to terminate within such 24 months period, the PPA continues in effect. PPA §2.2C. If the PUC Approval Order is subsequently vacated or reversed upon appeal, then the provisions of PPA §§2.2G(3) and 2.3G(4) are applicable.

e. In general, the PUC Approval Date will depend on when the Commission approves this application, and whether the approval order is made subject to a motion for reconsideration or an appeal. In any event, the PUC Approval Date cannot be any later than 24 months following the PUC Submittal Date.

5. Late Charges

If the Facility does not achieve either the Phase 1 or Phase 2 In-Service Date Deadline within 3 months after the deadline, as extended for Force Majeure, then Encogen is obligated to pay the late charges specified in PPA §2.4B. The late charge amount increases if either the Phase 1 or Phase 2 In-Service Date Deadline is missed by more than 9 months. The late charges will terminate after 15 months, unless HELCO notifies Encogen that HELCO will refrain from exercising its termination rights under PPA §7.2 for a stated period (not to exceed 6 months without Encogen's consent), based on HELCO's

reasonable estimate of the time required to achieve the Phase 1 or Phase 2 In-Service Date.

6. Termination

HELCO may declare an event of default pursuant to PPA §7.1A(1), which would trigger its right to terminate the PPA pursuant to PPA §7.2, if Encogen does not achieve the Phase 1 or Phase 2 In-Service Date within 15 months after the respective In-Service Date Deadline, or does not achieve the Phase 2 In-Service Date within 36 months after the PUC Approval Date or 54 months after the PUC Submittal Date. PPA §7.1A(1).

7. Milestones

The PPA establishes a limited number of Milestone Events, as identified in Attachment B to the PPA, which are to be met within 3 months of the identified Milestone Dates prior to achieving the In-Service Dates. The consequences for failure to achieve the milestones are addressed in PPA §2.4A (right to declare event of default), and PPA §2.4C (provisions for expedited arbitration of disputes under PPA §2.4A).

8. Permits and Licenses

Encogen is responsible for the acquisition of all permits and licenses required for the construction and operation of the Facility. If Encogen does not obtain all permits necessary for construction of the Facility within 8 months of the PUC Approval Date, Encogen has the right to terminate the PPA. PPA §3.2A(4). Encogen must provide HELCO a certificate that Encogen has obtained all then-required permits and licenses on or before (i) the date on which the closing of long-term,

non-recourse construction and term financing of the Facility occurs (the "Closing Date"), (ii) the Phase 1 In-Service Date, and (iii) the Phase 2 In-Service Date. PPA §§2.3A(2), (3)(iii), (4).

9. Facility Financing

a. Encogen may terminate the PPA if it does not obtain a firm commitment for non-recourse project financing on commercially reasonable terms and conditions within 8 months from the PPA execution date. PPA §2.7. HELCO has the option, upon Encogen's request, to participate in negotiations with potential financing parties to modify terms of the PPA as needed to acquire financing on satisfactory terms and conditions (in which case Milestone Dates and In-Service Date Deadlines would be extended on a day-for-day basis during such negotiations). Any termination under PPA §2.7 must occur, if at all, within the later of (i) 9 months after the PPA execution date, (ii) 45 days after the PUC Order Date (or 60 days after such date if the PUC Order amends any material provision of the PPA), or (iii) the earlier of 60 days after the date of filing of a motion for reconsideration of, or an appeal from, the PUC Order, or 10 days after the motion or appeal is resolved.

b. In response to inquiries regarding the financing, timing and commitments for the financing of the Encogen Facility, EDC has indicated that "EDC and Jones Capital, on behalf of their subsidiaries that will own the project ('sponsors'), plan to finance the project using a combination of construction and permanent loans from banks or institutional

investors and sponsor provided equity." Letter from Jody Allione to Tom Joaquin dated March 27, 1997, a copy of which is attached hereto as Exhibit "E" (attachments omitted).

c. Jones Capital confirmed "the commitment of Jones Capital Corporation and of our parent company, J.A. Jones, Inc., in the development and operation of the project" by letter from William Garnett, President, to Thomas Joaquin dated May 12, 1997, a copy of which is attached hereto as Exhibit "F".

d. EDC, by letter from Allan V. Smith, Senior Vice President, to Tom Joaquin dated May 13, 1997, indicated that "I am confident, based on our discussions with various financial sources, that many financial institutions will not only stand ready, but will compete intensely to provide financing for this project once they are presented with a complete set of acceptable contracts, permits, and regulatory approvals." A copy of the letter is attached as Exhibit "G".

10. Deferral Right

a. Subject to a number of conditions and restrictions, HELCO may defer the Phase 1 or Phase 2 In-Service Dates by up to 18 months (if it so elects prior to the PUC Approval Date) or may request a deferral of the In-Service Dates for up to 12 months (if it so elects after the PUC Approval Date but prior to the Phase I In-Service Date), beyond the then expected In-Service Date Deadlines, but only if such deferral does not have a material adverse effect on Encogen's ability to develop and finance the Facility on such basis, as reasonably demonstrated by Encogen. In demonstrating material adverse

effect, Encogen may consider factors such as its ability to obtain or maintain any permit, to meet a Milestone Date or In-Service Date, or to utilize special purpose revenue bonds. Encogen is required (at HELCO's cost) to use reasonable good faith efforts to mitigate or eliminate the cause of the material adverse effect, which may include re-applying for or obtaining modifications to permits or financing arrangements, provided that Encogen will not be required to do so if it can demonstrate that the Facility would be subjected to material delays, interferences, or increased costs not borne by HELCO. If HELCO requests a deferral after the PUC Approval Date, HELCO must work with Encogen and other parties interested in the Facility (such as financing parties and suppliers of goods and services) to obtain the consent of all such parties to the deferral under satisfactory terms and conditions. PPA §3.3C.

b. If the Facility is deferred, deadlines and applicable time periods in the PPA and Guarantees are tolled for the deferral period plus a reasonable time (not less than 90 days) for Encogen to cease and to restart its efforts. In the event of a deferral, Encogen is required to take such steps as it reasonably deems necessary to meet the deferred In-Service Date(s), including obtaining or renewing applicable permits, contracts, rights or properties, and must act to minimize certain out-of-pocket costs resulting from the deferral.

c. HELCO must bear all "Deferral Costs" incurred by Encogen, plus a monthly deferral fee ranging from \$50,000 to \$150,000, depending on when HELCO exercises the right

to defer. Deferral costs would include any additional costs resulting from deferral with regard to the acquisition, development and construction of the Facility and the Interconnection Facilities and the financing thereof, including all amounts paid or payable with regard to the construction contract, Site preparation, interconnect and start-up costs, materials and equipment, fuel inventory, insurance, taxes, project development fees and expenses, construction management expenses and fees, fees or penalties, charges, costs or expenses under all Project Documents, all Encogen debt for financing the Facility and the Interconnection Facilities (including principal, interest, fees, premiums, defeasance costs and penalties relating thereto), equity funds, if any, invested in the Project (including fees, premiums, premiums and penalties relating thereto), fees and expenses incurred in arranging financing for the Facility and attorneys' fees and disbursements, but excluding fees to Guarantor(s) for providing the Guarantee(s) except to the extent such fees would normally be payable in an arms' length transaction [i.e., "Project Costs Incurred" as defined in PPA §3.3B(1)].

11. Buyout Right

a. Prior to the Phase 1 In-Service Date, HELCO may elect to buyout the PPA if it reasonably determines that it no longer needs the additional capacity to be provided by the Facility. Encogen must thereupon cease construction activities and act to salvage the value of any goods purchased or contracts

signed with regard to the project, and must otherwise act to mitigate the losses from such buyout. PPA §3.3B(1).

b. The buyout price is the sum of certain Project Costs Incurred by Encogen, as identified in Subpart VII.10 above (less net salvage proceeds), plus a buyout payment amount ranging from \$5,000,000 to \$10,000,000, depending on when the buyout election is made. PPA §3.3B(1).

c. Upon HELCO's request, Encogen must take all actions necessary to convey to HELCO all of Encogen's right, title, and interest in the Facility and the Interconnection Facilities and in any unsalvageable materials, equipment, design materials or supplies relating thereto, and to assign to HELCO the "Project Documents" (such as the steam sales, construction and fuel supply contracts, and other relevant contracts, but not including the financing documents). PPA §3.3B(2).

12. Timing

a. EDC has made substantial progress in its efforts to obtain the permits and approvals necessary for it to install generation at Hamakua. There still remains some uncertainty as to the timing of its Facility due to the timing of (i) its final, non-appealable air permit (a draft permit has been issued), (ii) approval of the PPA, and (iii) its financing commitment (which could be impacted by appeals of its air permit or of Commission approval of the PPA).

b. Commission approval of the PPA will be required in order for Encogen to arrange long-term project financing of the Facility. EDC (and its equity partner, Jones

Capital) have funded the initial development of the Facility (including the negotiation of a PPA with HELCO, the acquisition of the site, the preliminary engineering for the Facility and the interconnection requirements, and submission and processing of the air and land use permit applications). However, EDC and Jones Capital intend to finance the construction of the facility on a project finance basis. Generally, project lenders require that a PPA be approved and other essential project contracts and permits be in place before releasing funds for the purchase of equipment, and the construction a project-financed Facility. Thus, the in-service dates for the Facility are scheduled to follow (by 8 months for Phase 1, and 12 months for Phase 2, subject to extension for force majeure) the receipt of a final Commission D&O approving the PPA. Also, an appeal of the D&O (such as by a competitor) would further extend the time before Encogen would have to begin construction.

c. The PPA provisions affecting the timing of the Encogen Facility take into account the realities of proceeding with a project-financed purchased power project. Although there is some possibility that the installation of the Facility may be delayed beyond 1999, other steps being taken by HELCO, including the installation of CT-4 and CT-5, should help HELCO maintain its load service capability margin even if there is some delay.

VIII. FIRM CAPACITY

1. Committed Capacity

The amount of capacity that Encogen anticipates making available to HELCO (i.e., the "Committed Capacity") is 22 MW

during the Phase 1 Period, and 60 MW (net) during the Phase 2 Period.

2. Firm Capacity

The "Firm Capacity" that is actually to be made available to HELCO dispatch, and for which HELCO will be required to pay pursuant to PPA §5.1B, is the amount of capacity that Encogen declares for the Facility in accordance with PPA §3.2C(22) after the conduct of the Initial Acceptance Tests for Phases 1 and 2 and any subsequent Capacity Tests. See also PPA §3.2D(3) (firm capacity guaranty).

3. Capacity Tests

The capacity charge payments under PPA §5.1B do not begin until the facility has completed the acceptance tests conducted in accordance with Attachment L to the PPA. PPA §§5.1B(2), 3.2(C)(22). If Encogen and HELCO are satisfied with the Initial Acceptance Test, the Firm Capacity is to be designated by Encogen up to the minimum average capacity level that the Facility is able to sustain over a 15 minute interval in which the facility is being dispatched at a maximum capacity, but may not be set at a level in excess of the Committed Capacity without HELCO's consent. Att. L, ¶I.B(3); see PPA Art. XVIII, PPA Art. I (definition of "Firm Capacity"). The Facility can pass the Initial Acceptance Test by providing at least 57 MW of Firm Capacity. If the Facility achieves a capacity level of between 42 MW and 57 MW, the Phase 2 In-Service Date Deadline will be deemed to be met, but Encogen must use its reasonable best efforts to increase the Facility's

capacity level to the Committed Capacity during the next 12 months (the "Corrective Period"). PPA §5.1B(3)(a). During the Corrective Period, the Capacity Rate otherwise specified by PPA §5.1B(1) will be reduced. PPA §5.1(B)(3)(b). The Facility must achieve a capacity level of at least 48 MW at the conclusion of the Corrective Period. If the achieved capacity level is between 48 MW and 54 MW, then the Capacity Rate will be reduced by the "Corrective Amount" specified in PPA §5.1A(3)(c). If the Facility has not achieved a capacity level of at least 48 MW after the Corrective Period, then HELCO is entitled to all rights and remedies provided under the PPA.

4. Maintenance Coordination

The PPA establishes provisions for the coordination of scheduled outages in PPA §3.2C(8). Pursuant to this section, the normal annual maintenance requirements for the Facility are identified as the equivalent of two weeks of full plant 60 MW outage. However, Encogen may not take units down for maintenance such that the capability of the Facility falls below 30 MW at any given time, except with HELCO's prior approval (which cannot be unreasonably withheld).

IX. DISPATCHABLE ENERGY AND CAPACITY

1. Facility Dispatch

a. Encogen must deliver to HELCO in accordance with HELCO Dispatch (as defined in the PPA) the entire Net Electric Energy Output (as defined in the PPA) associated with the Firm Capacity. PPA §3.2C(5).

b. Under the PPA, HELCO has the right to dispatch capacity and power delivered from the Facility as HELCO deems appropriate in its reasonable discretion, subject only to and consistent with Good Engineering and Operating Practices ("GEOP"), the dispatch constraints in PPA §3.2C, and the maintenance schedule determined in accordance with PPA §3.2C(8). A refusal to comply with HELCO Dispatch will result in an unreported derating. PPA §3.3A(1).

c. HELCO Dispatch is defined as HELCO's right, through supervisory equipment or otherwise, to direct or control both the capacity and the energy output of the Facility subject to the dispatch constraints in PPA §3.2C, which dispatch includes real power, reactive power, voltage, frequency, the number of Facility units on-line to meet an electrical output requirement, including the determination to cycle a unit or units off-line, require units to run in simple cycle mode when not able to operate in combined cycle mode, the distribution of electrical output among the Facility units on-line, the droop control setting on each on-line unit, the ramp rate setting of each on-line unit, and other characteristics of such energy output whose parameters are normally controlled or accounted for in a utility dispatching system.

2. Cycling

Within the limitations in the air permit regarding limits on starts or restarts³, the Facility generating units may

³ The parties are required to cooperate in seeking to remove limitations in the air permit regarding starts and restarts.

be shut down and restarted as requested by HELCO. However, under normal (non-emergency) system conditions, neither heat recovery steam generator may be shut down and restarted more than an average of once per day during any calendar month. If HELCO shuts down and restarts either heat recovery steam generator more than 30 times during any calendar month, there is a payment rate specified for each restart.

3. Simple Cycle Operation

HELCO may require that the Facility be run with one or two CTs in simple cycle operation, but is required to make Encogen whole with respect to certain out-of-pocket costs, and any reduction in the PPA payments or other adverse regulatory impact on Encogen's economic arrangements with HELCO as set forth in the PPA, if Encogen loses its QF status as a result of having to operate in simple cycle mode, and for any out-of-pocket costs, lost economic benefits and liabilities to third parties under the Thermal Energy Sales Contract resulting from simple cycle operations. PPA §3.2C(27). The provisions of PPA §3.2C(27) were negotiated at great length between the parties. HELCO deemed it necessary to retain the right to operate the facility in simple cycle mode primarily in the event that Encogen's ST is unavailable, particularly if it is unavailable for an extended period of time for a reason such as a catastrophic equipment failure.

4. Minimum Load Capability

When on-line, the minimum load levels for the Facility are: (a) for 1 CT operating in simple cycle mode -- 5 MW; (b) for 1 CT operating in combined cycle mode -- 7 MW; (c) for 2 CTs operating in simple cycle mode -- 10 MW; and (d) 2 CTs operating in combined cycle mode -- 16 MW. PPA §3.2C(9).

X. ENERGY AND CAPACITY PRICING

1. Energy and Capacity Prices

HELCO's payments to Encogen for energy and firm capacity will consist of an Energy Charge and a Capacity Charge. PPA §5.1.

2. Energy Charge

a. The Energy Charge consists of a fuel component and a variable O&M component, less an across-the-board discount of 2%.

b. The fuel component is based upon the Facility's guaranteed heat rate efficiency curves and HELCO's fuel costs (the total cost of delivered No. 2 fuel oil at Keahole, as reflected in HELCO's Monthly Fuel Oil Adjusted Factor Filing) adjusted against a fuel base price of \$4.35324/MMBtu. PPA §5.1A.

c. The variable O&M component consists of a variable component of .092¢/kwh and an overhaul component of \$103.43 per CT operating hour (both in 1995 \$), in each case escalated annually by the changes in the Gross Domestic Product Implicit Price Deflator ("GDPIPD"). PPA §5.1A.

d. A sample of the energy payment calculation is provided in "Attachment P" to the PPA. HELCO has no minimum energy purchase obligations under the PPA.

3. Capacity Charge

a. The Capacity Charge consists of a firm capacity component and a fixed O&M component, which are paid monthly for the full term of the PPA. Prior to the Phase 2 In-Service Date, the monthly capacity charge will be determined by the following formula: Firm Capacity (KW) of Phase 1 x Capacity Rate + Fixed O&M Component. On and after the Phase 2 In-Service Date, the monthly Capacity Charge is based on the following formula: [Facility's Firm Capacity (KW) - 2000 (KW)] x Capacity Rate + Fixed O&M Component. The Capacity Rate is \$15.43 per kilowatt month (\$185.16 per kilowatt year), unless it is reduced as stated below. The fixed O&M component is \$196,754.16 per month, adjusted for inflation based upon changes in the GPDIPD. PPA §5.1B.

b. The Firm Capacity at the Facility will be determined in the Initial Acceptance Tests for Phase 1 and Phase 2 and any subsequent Capacity Tests, in accordance with the testing procedures set forth in "Attachment L" to the PPA, regardless of actual level of dispatch of the Facility. PPA §3.2C(22); PPA §5.1B(1). However, if at HELCO's request, the Facility provides additional capacity above the Firm Capacity, the Capacity Charge during such month shall be based on the higher level of capacity requested by HELCO and delivered to HELCO at the Metering Point. PPA §5.1B(1).

c. The Capacity Charge payments will begin when the Facility has completed the acceptance tests and Encogen has declared that the Facility has achieved the Phase 1 In-Service Date or Phase 2 In-Service Date, as the case may be. PPA §5.1B(2).

d. If the Facility is unable to provide at least 57 MW of firm capacity during the Phase 2 acceptance tests, but is able to achieve a capacity level of between 42 MW and 57 MW, the Phase 2 In-Service Date Deadline will be deemed to be met, provided that, during the Corrective Period, Encogen uses its reasonable best efforts to increase the Facility's capacity to the committed capacity of 60 MW, as is addressed in Subpart VIII.3. PPA §5.1B(3)(a).

e. During the Corrective Period, the Capacity Rate will be reduced by 1% for each 1% that such capacity level is below 90% of the committed capacity. PPA §5.1B(3)(b).

f. If, at the end of the Corrective Period, the Facility has not achieved a firm capacity level of at least 54 MW, the Committed Capacity will be reset to the Firm Capacity level achieved by the Facility during its most recent Capacity Test. Until the Facility's Firm Capacity is revised by a subsequent Capacity Test (which requires HELCO's prior consent), the Capacity Rate shall be reduced by a corrective amount:
$$\text{Corrective Amount (in \$/KW/year)} = 150 - 0.0025 \times \text{Firm Capacity (in KW)}.$$
 PPA §5.1B(3)(c).

g. So long as the Facility has achieved at least 48 MW, the adjustments to the level of Committed Capacity

and Capacity Charge will be HELCO's sole and exclusive remedy for the Facility's failure to achieve the guaranteed capacity level. If the Facility has not achieved a capacity level of at least 48 MW after the Corrective Period, then HELCO is entitled to all rights and remedies provided under the PPA.

PPA §5.1B(3)(c).

h. Any payments due as compensation for an obligation excused by a Force Majeure event will also be excused for so long as the obligation is not performed due to Force Majeure.

4. Taxes and Fees

a. HELCO will not be liable for payment of Hawaii General Excise Tax ("HGET") levied and assessed against Encogen. The rates and charges will not be adjusted by reason of any subsequent increase or reduction of the HGET, except to the extent such tax applies to other generation units owned by HELCO. PPA §5.1C.

b. HELCO will not be liable for payment of air pollutant emission fees imposed by the DOH or U.S. EPA on Encogen as a result of operating the Facility. PPA §5.1D.

c. HELCO will not be liable for payment of nor reimbursement of any Encogen payment of any new or modified tax or fee imposed by any governmental body, except to the extent such tax applies to the generation units owned by HELCO. PPA §5.1E.

5. Metering

HELCO will purchase and own meters suitable for measuring the integrated Net Electric Energy Output of the Facility in kW and kwh on a time of use basis and of reactive power flow in kilovar and kilovarhours. PPA §3.2E(1). HELCO will purchase, install and own the telecommunications, telemetering and remote control equipment at the Facility required in order to allow HELCO to dispatch the electrical energy from the Facility and for the transmission of metered data. Encogen will reimburse HELCO for its reasonable procurement and installation costs, up to \$100,000, and its maintenance costs, in the form of an up front fixed payment of \$82,000. PPA §3.2E(2). The PPA also governs meter testing and correction of errors. PPA §§3.2E(3), (4).

6. Billing and Payment

The timing of invoices and payments is governed by PPA Art. VI.

7. Audit Rights

Audit rights under the PPA are limited to those necessary to verify the basis for claims for payments.

PPA Art. X.

XI. AVOIDED COSTS

1. Comparison of Avoided Costs to Encogen Prices

a. The avoided cost calculation and the comparison of HELCO's avoided costs to the cost of the PPA prices are summarized as follows:

Present Value at January 1997

Avoided Capacity Cost	\$163,183,000 ⁴
Avoided Fuel Cost	236,650,000
Avoided Variable O&M Cost	20,204,000
Total Avoided Cost	\$420,037,000
PPA Capacity Cost	\$165,178,000 ⁵
Fuel Charge	228,094,000
Variable O&M Charge	26,709,000
Total PPA Charge	\$419,981,000

The avoided cost calculation, and the assumptions underlying the calculation, are attached hereto as Exhibit "H".

b. Based on the assumptions underlying the calculation of avoided costs for the Encogen Facility, the PPA costs are estimated to be approximately \$56,000 (on a discounted present value or "dpv" basis) lower than HELCO's avoided costs.

c. As part of the Settlement Agreement, HELCO and EDC agreed that there would be no price adjustment provision in the PPA to account for SCR, but that as part of the request for approval of the PPA, HELCO would include the possible future impact on avoided costs if and when SCR were determined to be BACT for the Keahole DTCC facility by DOH.

d. HELCO performed an avoided cost calculation in or about March 1996 estimating the impact of implementing SCR as BACT for its planned Keahole and future DTCC units. Implementation of SCR would impact capital, fixed O&M, and

⁴ \$241.70/KW-yr levelized

⁵ \$244.66/KW-yr levelized

variable O&M costs. Based on the preliminary SCR cost estimates available at that time, avoided costs (on a dpv basis) would increase by about \$17.5 million, or 4.3%, if HELCO were required to implement SCR. A final report on the pilot SCR test under the MECO/HELCO SCR demonstration program, prepared by Radian International and dated February 19, 1997, was submitted to DOH and EPA. The SCR costs in the final report are higher than the estimates used in the March 1996 calculations, so that the impact on the avoided cost calculation would now be even greater.

e. The calculation of avoided costs reflects the guidance provided in D&O 15053, as clarified in Order 15187, as well as the earlier guidance provided in Docket No. 7956 (regarding Kawaihae Cogeneration Partners) in D&O 14030 and Order 14502. In accordance with Order 15187, the calculation is "based on the assumptions and calculations as of the date of Decision and Order No. 15053, except to the extent necessary to comply with the commission's order in Decision and Order No. 15053." Order 15187 at 3-4.

2. Settlement Agreement

In Order 15745, the Commission ordered that "[i]n the review of the HELCO-EDC PPA, avoided costs will be determined in accordance with the Settlement Agreement." Order 15745 at 8. The Settlement Agreement addressed avoided transmission capital costs, avoided line losses, and avoided costs related to SCR costs. See Exhibit "I" attached hereto.

3. PURPA

Encogen intends to operate its cogeneration facility as a QF, and the Encogen Facility will meet the ownership and technical criteria applicable to a QF. The rules of FERC and of this Commission implementing PURPA require electric utilities such as HELCO to offer to purchase electric energy and capacity made available by QFs at a rate reflecting the costs that the purchasing utility can avoid as a result of obtaining energy and capacity from these sources (i.e., to offer to purchase at avoided costs). Since Federal law and this Commission's rules require that HELCO purchase energy and capacity from a QF at a price equal to HELCO's avoided costs, power purchase costs at or below HELCO's avoided costs are, as a matter of law, just and reasonable. As a corollary, HELCO is entitled to include amounts that it must pay pursuant to such a PPA in its revenue requirements for ratemaking purposes.

XII. DESIGN AND PERFORMANCE STANDARDS

1. Facility Design

In general, Encogen is responsible for the design of its Facility. However, it is required to provide HELCO with an opportunity to (a) review and comment on the design of the Facility, (b) to observe the construction of the Facility, and (c) to inspect the Facility following the completion of construction. PPA §§3.2A(1), (5), PPA §2.3A(1).

2. Design Parameters

In order to facilitate the integration of the Encogen Facility into HELCO's system, the PPA specifies (a) delivery

voltage standards, PPA §3.2C(1), (b) frequency standards, PPA §3.2C(2), (c) reactive KVAR standards, PPA §3.2C(3), (d) a minimum generator H constant, PPA §3.2C(4), (e) maximum start-up periods for warm and cold start-ups, PPA §3.2C(24), (f) CT ramp rates, PPA §3.2(C)(25), backed up by PPA provisions allowing HELCO to direct the Facility to demonstrate its ability to meet the maximum ramp rate, PPA §3.3A(2), (g) the quick load pick up ("QLPU") for a three second period, PPA §3.2C(26), and (h) other design and operating parameters specified in PPA §3.2C.

3. Operations and Maintenance

Encogen is required to operate the Facility in accordance with GEOP. PPA §3.2B(1). Encogen also is required to maintain certain operating records and maintenance records, which HELCO has the right to review, and HELCO may provide written recommendations for specific operation or maintenance actions or for changes in the operation or maintenance program of the Facility. PPA §§3.2B(4), (5). The PPA also makes provision for periodic meetings between Encogen and HELCO representatives to discuss Facility operations and maintenance. PPA §3.2K.

4. HELCO Inspection

HELCO has specified rights in the PPA with respect to inspecting the Facility and Encogen's construction, operation and maintenance of the Facility. PPA §9.1. Under certain circumstances, HELCO can place a Site Representative to observe Facility operations for a period of up to 30 days. PPA §9.5.

5. Independent Engineering Assessment

If HELCO has reasonable cause to believe that Encogen is failing to operate or maintain the Facility in accordance with GEOP, and that such failures likely are the result of failure to meet certain performance standards set forth in PPA §3.2C (and under other specified circumstances), which Encogen fails to remedy after HELCO has brought the practices to Encogen's attention, HELCO may require that the practices in question be assessed by a qualified professional engineering firm. PPA §3.3D(1).

6. System Protection

a. Encogen, must, at its own cost, install, operate and maintain internal breakers, relays, switches, synchronizing equipment and other associated protective and control equipment necessary to maintain the standard of reliability, quality and safety of electricity production suitable for parallel operation with HELCO's electrical system as required by GEOP. HELCO has the right to review and accept the design of all such equipment and protective relay settings. PPA §3.2A(6)(i). Encogen's responsibilities upon receipt of HELCO's comments are specified in PPA §3.2A(6)(ii).

b. Encogen must operate the Facility with all applicable installed system protective equipment in service whenever the generator is connected to or is operated in parallel with HELCO's electrical system, except for normal testing purposes. PPA §3.2B(2).

c. Encogen must provide a manual disconnect device which provides a visible break to electrically separate the Facility from HELCO's electrical system. PPA §3.2B(3).

d. Encogen must have the ability to trip and close its generator synchronizing breakers located at the Facility. PPA §3.2C(7), Att. A.

e. Provisions with respect to the suspension or reduction of deliveries to address facility conditions that have a material adverse physical impact on HELCO's electrical system, or that present an immediate danger to personnel or equipment, are included in PPA Art. IV.

7. Spare Parts

Encogen has agreed to budget and maintain at least \$500,000 (1998\$) worth of spare parts for the Facility. PPA §3.2J.

8. Performance Warranties and Guaranties

a. The PPA contains the following performance warranties: (i) Equivalent Availability Factor ("EAF") of at least 90% (85% during the start-up period, and 89% during a major overhaul year), PPA §3.2D(1); (ii) Equivalent Forced Outage Rate ("EFOR") of less than 4% (8% during the start-up period), PPA §3.2D(2); (iii) quality of power standards relating to delivery voltage, frequency and reactive KVAR, PPA §3.2D(4); (iv) a limit of six unit trips per year (12 during the start-up period), PPA §3.2D(5); and (v) after the first 12 months following the Phase 2 In-Service Date, the capability to produce and deliver the firm capacity level

established in accordance with the PPA, PPA §3.2D(3) (see Part VIII, supra).

b. The performance warranties are intended to recognize the performance capabilities of the Facility. As an example, Encogen is held to performance warranties for EAF, EFOR, and unit trips from the Phase 1 In-Service Date (although such first-year standards are less stringent in recognition of the Facility's start-up period).

c. The performance warranties constitute the exclusive warranties under the PPA and operate in lieu of all other warranties, whether oral or written. Encogen and HELCO disclaim any other warranty, expressed or implied, including without limitation, warranties of merchantability or fitness for a particular purpose. PPA §3.2D(6).

9. Liquidated Damages

a. If the Facility fails to achieve the guaranteed EAF on average for the current contract year and previous contract year (a continuous 24-month period), Encogen must pay HELCO specified liquidated damages based on each 0.1% variance. If the EAF falls between 0% to 4.9% below guaranteed level, Encogen must pay \$7,500 (1998 \$) per 0.1%. If the EAF is 5% to 9.9% below the guaranteed level, Encogen must pay \$10,000 (1998 \$) per next 0.1% up to 10.0%. For each 0.1% that the EAF falls between 10% to 15% below the guaranteed EAF level, Encogen shall deposit \$12,000 (1998 \$) into the Maintenance Account described below. PPA § 8.1A.

b. If the Facility exceeds the guaranteed EFOR on average for the current contract year and the previous contract year (a continuous 24 month period), Encogen must pay specified liquidated damages. If the EFOR exceeds 0% to 4.9% of the guaranteed level, Encogen shall pay \$3,000 (1998 \$) per 0.1%, and if the EFOR exceeds the guaranteed level by 5.0% to 9.9%, Encogen shall pay \$4,000 (1998 \$) per next 0.1% up to 10% in total. For each 0.1% that the EFOR exceeds the guaranteed level by 10% or more, up to 15% above the guaranteed level, Encogen must deposit \$5,000 (1998 \$) into the Maintenance Account described below. PPA § 8.1B.

c. If the Facility cannot ramp upwards or downwards at ramp rates specified in PPA §3.2C(25) in accordance with PPA §3.3A(2), then Encogen must pay liquidated damages according to a formula. PPA § 8.1C. Encogen's total liability for any ramp derating will not exceed \$5,000 a calendar week or \$250,000 during any 12 months period. If Encogen's total liability for any ramp derating exceeds \$150,000 during any calendar year, the excess will be deposited into the Maintenance Account described below. PPA § 3.3A(2).

d. Encogen must also pay liquidated damages for excessive unit trips (over 12 per year until the end of the Phase 2 start-up and over 6 per year thereafter) at the following rates: (i) 1-3 unit trips - \$5,000 per trip, (ii) 4-7 unit trips - \$7,500 per next trip, and (iii) 8 or more unit trips - \$10,000 per next trip. PPA § 8.1D.

e. Encogen is required to establish a Maintenance Account to hold the monies that Encogen is required to deposit as discussed above. The Maintenance Account is to be used to fund maintenance, modification or repairs to the Facility on an expedited basis to bring EAF or EFOR within guaranteed levels, to cure ramp derating problems or to otherwise enhance the Facility's performance standards. However, Encogen is not required to deposit any monies to the Maintenance Account to the extent the account would exceed \$4,000,000 (1998 \$). Encogen is entitled to withdraw all remaining amounts in the Maintenance Account (i) once EAF and EFOR levels are within guaranteed levels for two consecutive years and any derating problems are cured, or (ii) upon the termination of the PPA. PPA § 8.3.

XIII. OTHER CONTRACT TERMS AND CONDITIONS

1. Term

a. In general, the Term of the PPA commences upon the Execution Date and, unless extended, terminates on the 30th anniversary of the Phase 2 In-Service Date.

b. A 30-year term was provided to be consistent with the guidance provided in Decision and Order No. 14030 issued July 31, 1995 in Docket No. 7956. As a condition precedent to HELCO's obligation to purchasing power, Encogen must provide HELCO with either the available design materials listed in Attachment O or other evidence reasonably demonstrating that the Facility, if constructed, operated and maintained pursuant to the design materials and in accordance

with GEOP, can be reasonably expected to have a useful life at least equal to the Term. PPA §2.3A(1).

c. If a Force Majeure event occurs after the Phase 2 In-Service Date, the Term will be extended on a day-for-day basis for the duration of the event. PPA §15.6.

d. HELCO has the first opportunity to negotiate with Encogen to purchase power from the Facility for periods beyond the Term. PPA §2.6A. The Term will be automatically extended on a month-to month basis if the parties are engaged in good faith negotiations for the continued purchase of power or for the purchase of the Facility pursuant to PPA Art. XIX. PPA §2.6B.

2. Events of Default and Termination

The PPA contains several specific events of default, which if not cured or in the process of being cured by the defaulting party within specified periods, may give rise to termination of the PPA or the pursuit of other remedies by the non-defaulting party. With respect to both parties, the enumerated events of default include: (i) failure to make timely payments when due; (ii) failure to comply with an applicable arbitrator's decision; (iii) bankruptcy (whether filed voluntarily or involuntarily); and (iv) failure to perform a material obligation under the PPA not otherwise identified as a specific event of default. The PPA includes several additional specific Encogen events of default, including failure to meet In-Service Date Deadlines and failure to meet performance standards. PPA Art. VII.

3. Insurance

Encogen is required to acquire and maintain certain minimum insurance coverages (subject to reasonable deductions or self-insured retentions), which Encogen and/or its Financing Parties reasonably determine, after consultation with HELCO, to be necessary during construction and operation of the Facilities, as long as such coverage is available to Encogen on commercially reasonable terms, including coverage for (a) worker's compensation and employers' liability, (b) general liability, (c) automobile liability, (d) builders all risk, (e) all risk property/comprehensive boiler and machinery, (f) business interruption, (g) project liability errors and omissions, and (h) ocean transit. HELCO is to be an additional insured under certain of the coverages. PPA Art. XIII, Att. J, §§2.3A(2)(ii), (3)(i).

4. Indemnity

Provisions with respect to Encogen's indemnification of HELCO and HELCO's indemnification of Encogen are addressed in PPA Art. XI.

5. Consequential Damages

The PPA provides that neither Encogen nor HELCO will be liable to the other party for any consequential, incidental, punitive or exemplary damages. PPA Art. XII.

6. Dispute Resolution

The general procedures for resolving disputes under the PPA, including provisions for good faith negotiations and arbitration, are set forth in PPA Art. XIV. There are

provisions for expedited arbitration of certain issues arising out of Encogen's failure to achieve Milestone Events.

PPA §2.4A, C.

7. HELCO Electric Service

The PPA does not provide for electric services by HELCO to Encogen. Any such services would be provided in accordance with HELCO's Schedule J Tariff. PPA Art. XVI.

8. Assignment

Generally, the PPA is not assignable by Encogen without the prior written consent of HELCO, which cannot be unreasonably withheld. However, Encogen may assign the agreement, without the consent of HELCO, as required by the Financing Parties or otherwise in connection with Financing Documents, and to an affiliate, a wholly-owned subsidiary or a successor of Encogen. PPA §XVII.

9. Sale of Facility

Under certain conditions, HELCO has a right of first refusal with respect to the purchase of the Facility should Encogen desire to dispose of its interest in the Facility. PPA Art. XIX.

10. Security

a. The PPA provides for a guarantor to be financially responsible for all of Encogen's payment obligations under the PPA, up to the guaranteed amount, for penalties, liquidated damages, payments due HELCO under the Interconnection Agreement, and reimbursement of certain HELCO administrative costs. To secure its obligations to HELCO under

the PPA, Encogen has provided the corporate guarantees of Enserch and Jones Capital (each 50% responsible for the following amounts) in the amount of (i) \$200,000 from Commission approval through financial closing, (ii) \$1,000,000 between financial closing and the Phase 2 In-Service Date), and (iii) \$3,000,000 from Phase 2 In-Service Date to the end of the term. Copies of the executed guarantees are attached hereto as Exhibits "J" and "K". Encogen has the option to substitute a standby letter of credit or performance bond for the guarantees. PPA §21.1, 21.2, Att. T.

b. To secure the performance of Encogen's payment obligations under the PPA, Encogen must execute and deliver a Security Agreement and Mortgage at the closing of its financing. The agreements, which are to contain terms and conditions reasonably satisfactory to Encogen's Financing Parties and to HELCO, are subordinated (pursuant to a Subordination Agreement) to the mortgage and security agreements provided by Encogen to its Financing Parties. PPA Art. I (definitions of "Mortgage" and "Security Agreement"); PPA §3.1E.

c. To the extent permitted by its Financing Parties, Encogen must grant to HELCO a subordinated security interest in any escrow or reserve accounts established in connection with financing for the Facility. PPA Art. XX.

XIV. INTERCONNECTION

1. Interconnection Facilities

a. Pursuant to H.A.R. §6-74-26, Encogen is required to pay for the costs incurred to directly interconnect Encogen's Facility into HELCO's transmission system.

b. Under the Interconnection Agreement, Encogen is responsible, at its cost, for the design, engineering, and construction of the following Interconnection Facilities:

(i) a 69 kV Switching Station, configured to operate initially with 6 breakers (and to accommodate 9 breakers) arranged in a breaker-and-a-half scheme;

(ii) two 69 kV transmission lines, approximately one mile in length, between the switching station and the Hamakua-Honokaa and Hamakua-Puukapu 69 kV transmission lines; and

(iii) six 69 kV circuit breakers, and associated equipment. Interconnection Agreement ¶2(a), Schedule 1

c. Upon completion, the Interconnection Facilities will be transferred to HELCO. HELCO will be responsible for expenses, costs and taxes in connection with the transfer of such facilities to HELCO. Once the Facility has ceased operations, HELCO will be obligated to pay Encogen a Residual Payment Amount (except under certain default circumstances) based upon the greater of the depreciated book

value or salvage value of the facilities at such time.
Interconnection Agreement ¶7.

d. After the transfer of the Interconnection Facilities, HELCO will own, operate and maintain such facilities. Encogen will reimburse HELCO for all reasonable and routine operation and maintenance expenses for such facilities to the extent they are used for the Encogen Facility. Interconnection Agreement ¶5.

2. Transmission System Modifications

a. As determined in D&O 15053, certain modifications are required to HELCO's transmission system in order to ensure interconnected operations with Encogen on a reliable basis under both normal and emergency conditions. D&O 15053 at 13. The Commission determined that HELCO should implement its preferred interconnection option, which includes:

- (i) adding a new 69 kV transmission line from the Encogen switching station to HELCO's existing Keamuku Switching Station (a distance of approximately 28 miles);
- (ii) reconductoring or rebuilding the existing Keamuku-Puuwaawaa-Keahole 69 kV transmission line; and
- (iii) adding 12 MVAR of capacitors in West Hawaii to provide voltage support. See D&O 15053 at 10, 13.

b. Pursuant to D&O 15053, Encogen is responsible only for that portion of the transmission system modification costs that equals the costs of reconductoring the existing Honokaa-Waimea line (which EDC suggested as an

alternative to the transmission system modifications proposed by HELCO). D&O 15053 at 22.

c. In accordance with Order 15187, Encogen is not responsible for the cost of replacing those poles that would require replacement because of their deteriorated condition. Interconnection Agreement ¶10(d); Order 15187 at 5-6.

d. The parties accepted the Commission's recommendation that they obtain a qualified, independent engineering opinion with respect to the reconductoring cost. Interconnection Agreement ¶10; see Order 15187 at 6.

e. The terms for and timing of Encogen's contribution are set forth in Interconnection Agreement ¶9.

f. Pursuant to Order 15187, HELCO's obligation to accept power from Encogen is not contingent on the completion of the transmission system modifications. Interconnection Agreement ¶9(a); Order 15187 at 5.

XV. RATE IMPACT

1. Annual Payments

The total annual payments to Encogen will depend on the Firm Capacity established pursuant to the acceptance test, the number of kwh dispatched by and delivered to HELCO, and the combustion turbine operating hours (assuming there is no reimbursement necessary for simple cycle operation). Assuming that the Facility's installation is completed in 1999, the first full year of payments would be in 2000. The estimated payments to Encogen for capacity and energy provided in 2000

would be \$32.7 million, including \$13.4 million for firm capacity and \$19.3 million for energy (assuming a Firm Capacity of 60 MW, 381 gwh delivered, 14,286 CT operating hours, and the other assumptions as to unit operation, fuel prices and escalation rates set forth in Exhibit "L" attached hereto).

2. Rate Impact

The estimated rate impact of the annual payment for firm capacity would be 1.62¢/kwh in 2000, based on the assumptions included in Exhibit "L" (including forecast sales of 910.8 gwh in 2000). The rate impact simply reflects the fact that HELCO will be adding 60 MW of new generation to its system. The timing of the rate impact will depend on the timing of the completion of Phases 1 and 2 of the Encogen Facility. No rate impact for the energy payments has been calculated, because HELCO's dispatch and purchase of energy from Encogen will offset the generation of energy by HELCO and/or HELCO's purchase of energy under other PPAs.

3. Levelized Capital Component of Capacity Charge

The capital component of the Capacity Charge has been levelized, which mitigates to some extent the rate impact of adding a substantial increment of new capacity. In other words, the revenue requirements required from customers in order to cover the revenue requirements related to the return on investment, and the return of investment in the form of depreciation, can be the same in each year of the asset's useful life. Under the traditional utility-ownership approach, the utility's revenue requirements associated with the capital

costs of an asset are higher in the earlier years of an asset's life than in the later years.

XVI. COMMISSION APPROVAL

1. Commission approval is sought pursuant to Section 6-60-6 of the Commission's Rules establishing Standards for Electric and Gas Utility Service in the State of Hawaii, which are codified in the Hawaii Administrative Rules ("H.A.R."). H.A.R. §6-60-6(2) provides that:

No changes in fuel and purchased energy costs may be included in the fuel adjustment clause unless the contracts or prices for the purchase of such fuel or energy have been previously approved or filed with the commission.

2. The executed PPA and Interconnection Agreement also are submitted for Commission review and approval pursuant to Order 15745 (ordering paragraph number 2), and in accordance with PPA §§2.2B and 23.14, and Interconnection Agreement ¶12.

3. The request for a declaratory order as to the applicability of H.R.S. §269-1 is made pursuant to H.R.S. §91-8 and H.A.R. 6-61-159, and in accordance with PPA §3.2C(27)(viii).

XVII. BACKGROUND

1. HELCO and EDC commenced discussions in 1991 regarding the possibility of EDC selling power to HELCO.

2. On April 6, 1994, EDC filed a Verified Complaint and Petition with the Commission, which by Order No. 13277, filed May 27, 1994, was converted into a proceeding ("Docket No. 94-0079") under H.A.R. §6-74-15(c) regarding EDC's proposal

to sell energy and capacity to HELCO, and related PPA, avoided cost, and transmission and interconnection issues.

3. HELCO and EDC participated in a number of hearings before the Commission in Docket No. 94-0079, and in lengthy negotiations to resolve outstanding PPA, avoided cost, and transmission and interconnection issues.⁶

4. In Decision and Order No. 15053, issued October 4, 1996 ("D&O 15053"), the Commission ordered that: "HELCO and EDC shall continue to negotiate a power purchase agreement, consistent with the findings and conclusions in this decision and order." The Commission order further provided that: "The negotiations shall proceed expeditiously, and no later than 75 days from the date of this order, HELCO and EDC shall submit to the Commission either a finalized PPA or reports informing the Commission of the matters that are preventing the finalization of a PPA." D&O 15053 at 32. While HELCO and EDC were not able to submit a finalized PPA within the timeframe contemplated by D&O 15053, HELCO and EDC ultimately reached agreement on a finalized PPA.

5. On June 2, 1997, HELCO entered into a Settlement Agreement with EDC, which resolved the remaining issues between

⁶ The initial hearings were held in December 1994, and Opening and Reply Briefs were filed in April and May 1995. The negotiations following the December 1994 hearings are summarized in the confidential status reports filed in Docket No. 94-0079 pursuant to Protective Order No. 13460 (August 23, 1994). A summary of the negotiations leading to finalization of the PPA is set forth in Exhibit "M" hereto.

HELCO and EDC regarding the calculation of avoided costs for the proposed Encogen Facility, and documented the agreements of the parties on all remaining PPA, and transmission and interconnection issues raised in Docket No. 94-0079, taking into account the guidance provided by the Commission in prior decision and orders. HELCO requested approval of the Settlement Agreement by motion filed June 2, 1997. In accordance with the Settlement Agreement, HELCO also requested a determination by the Commission that it would be prudent for HELCO to enter into the PPA and the Interconnection Agreement with Encogen, while continuing to pursue the installation of its own combustion turbines (CT-4 and CT-5) at Keahole.

6. The agreements took into account the guidance provided by the Commission in D&O 15053, as modified by Order No. 15187 ("Order 15187"), issued November 25, 1996, in Docket No. 94-0079, as well as in Decision and Order No. 14030 ("D&O 14030"), issued July 31, 1995, and Order No. 14502 ("Order 14502"), issued January 26, 1996, in Docket No. 7956, to the extent applicable to the facts and circumstances of Docket No. 94-0079.

7. By Order No. 15745, issued August 7, 1997, the Commission:

(a) approved the Settlement Agreement, insofar as it settled the issues concerning the terms and conditions of a PPA and interconnection agreement between HELCO and EDC;

(b) ordered HELCO and EDC to submit to the Commission for review and approval executed copies of the PPA

and interconnection agreement that incorporate their agreements contained in the Settlement Agreement;

(c) ordered that, in the review of the HELCO-EDC PPA, avoided costs would be determined in accordance with the Settlement Agreement; and

(d) denied the request for a prudency determination, holding that it would not decide the issue in Docket No. 94-0079.

XVIII. ENCOGEN WOULD NOT BE A PUBLIC UTILITY

1. As discussed above, HELCO generally has the complete right to dispatch the Facility to meet its system requirements. However, under certain circumstances, HELCO's dispatch of the Facility in simple cycle operation for an extended period may cause the Facility to lose its QF status. See Subpart IX.3, supra. A QF is generally exempt from regulation as a public utility. If the Facility loses its status as a QF, there is uncertainty as to whether Encogen would become a public utility.

2. In order to eliminate any uncertainty as to whether Encogen could be deemed to be a "public utility" subject to the requirements of H.R.S. Ch. 269, HELCO requests that the Commission issue a declaratory ruling determining that Encogen will not be a "public utility" within the meaning of H.R.S. §269-1. Under appropriate circumstances, such as are presented in this case, a power producer which sells all of the power from its generating facility to an electric public

utility, and does not intend to dedicate its facilities to public use, should not be deemed to be a "public utility."

3. In relevant part, H.R.S. §269-1 provides the following definition of a "public utility":

"Public utility" means and includes every person who may own, control, operate, or manage as owner, lessee, trustee, receiver, or otherwise, whether under a franchise, charter, license, articles of association, or otherwise, any plant or equipment, or any part thereof, directly or indirectly for public use . . . for the production, conveyance, transmission, delivery, or furnishing of light, power, heat, cold, water, or oil

4. The Commission generally has not exercised jurisdiction over companies which generate and sell power to Hawaii's electric public utilities for resale to the public. Instead, the Commission reviews the purchase power contracts entered into by the utilities, and confines its jurisdiction to the rates and services of the utilities themselves.

5. In a June 1983 decision, the Commission reaffirmed its administrative construction of the public utilities law under circumstances where the specific statutory exemptions were inapplicable, by finding that the "owner" of an electric generating facility does not become a public utility just because power is sold to a public utility for resale to the public. Re Wind Power Pacific Investors-III and Waikoloa Water Co., Decision and Order No. 7578, Docket No. 4779 (June 20, 1983). The Commission's decision on the "public utility" issue was as follows:

Section 269-1 states in part, that a "public utility means and includes every person who may own, control or operate . . . any plant . . . directly or indirectly for public use . . . for the production, conveyance, transmission . . . of light, power" (Emphasis added.) This Commission has consistently held that there has to be an intent on the part of a person to dedicate his property for public use before it can become a public utility. This is a question of fact to be determined by the Commission. The facts in this proceeding indicate that WPPI-III [the owner] will only sell power to WWC [the operator] and to no other person or persons. We can find no intent from these facts to indicate that WPP-III desires to dedicate its property for public use. This is not to say, however, that WPP-III could not be declared a public utility where the facts warrant such a finding. As for the argument that WPPI-III is ultimately selling electric power to the public indirectly, we again note that there is no intent on the part of WPPI-III to dedicate its facilities to the public use. We conclude that WPPI-III would not be a public utility because WWC will sell surplus power to HELCO.

Id. at 15 (emphasis in the original).

6. The Commission's decision was affirmed on appeal. In Re Wind Power Pacific Investors-III, 67 Haw. 342, 686 P.2d 831 (1984). The Hawaii Supreme Court based its affirmance on deference to the Commission's construction of the Hawaii public utilities law, and the concept of dedication to public use implicit in the term "public utility." In affirming the Commission's decision, the Court found that:

The term "public utility" implies a public use. The regulation of public utilities ensures continuation of service to the public with reasonable efficiency, at fair rates, and without discrimination against particular users or classes of

users. A.J.G. Priest, I Principles Public Utility Regulation, Ch. 1, generally; 73B C.J.S. Public Utilities §2.

[W]hether the operator of a given business or enterprise is a public utility depends on whether or not the service rendered by it is of a public character and of public consequence and concern, which is a question necessarily dependent on the facts of the particular case, and the owner or person in control of property becomes a public utility only when and to the extent that his business and property are devoted to a public use. The test is, therefore, whether or not such person holds himself out, expressly or impliedly, as engaged in the business of supplying his produce or service to the public, as a class, or to any limited portion of it, as contradistinguished from holding himself out as serving or ready to serve only particular individuals.

73B C.J.S. Public Utilities §3. See also Priest *supra*, p. 10-13; Wilhite v. Public Service Commission, 150 W.Va. 747, 149 S.E.2d 273 (1966).

67 Haw. at 345.

7. The Commission has applied this precedent to a power purchase arrangement where all of the power producer's output was sold to a public utility. Re Molokai Electric Co., Docket Nos. 5174 & 5175, Decision and Order No. 8203 (Dec. 21, 1984) ("D&O 8203"). In addition to other approvals, Molokai Electric requested (1) approval to enter into a PPA with Cummins Hawaii, Inc. to provide base load generation from diesel generators pending the return to service of Molokai Electric's biomass plant, and (2) a declaration that Cummins Hawaii, Inc. would not become a "public utility" by virtue of

the PPA. Citing In Re Wind Power Pacific Investors-III, *supra*, the Commission found that Cummins Hawaii, Inc. would not be a "public utility":

The proposal to purchase energy from Cummins for a short term raised the potential issue of the status of Cummins as a public utility under the definition in Section 269-1, HRS. The purchase power agreement explicitly states that the power will be purchased by the utility and it is Cummins' intention to provide such power as an interim measure. The facts indicate that Cummins does not intend to sell energy to other than the Company and does not intend nor does it wish to be declared a public utility. It has expressly declared that if it were to become a public utility during this temporary period, it will not enter into the agreement to provide electric power.

. . . .

The facts in this case expressly shows [sic] that Cummins, by its sale of electricity to the Company, does not intend to dedicate its facilities to public use because it expressly does not want to become a public utility during the interim period it is selling power to the Company. Further, it will only be selling power to the Company and no one else. We conclude from these facts and the Wind Power, case, *supra*, that Cummins, if it sold power to the Company during the interim period, would not be a public utility as that term is defined under Section 269-1, HRS.

D&O 8203 at 12-13.

8. The case of Union Falls Power Co. v. City of Oconto Falls, 221 Wis. 457, 265 N.W. 722 (1936), supports the foregoing decisions regarding dedication to public use. There, the court had to determine whether Union Falls was a public utility as defined in the Wisconsin public utility statute. Union Falls claimed that it was a public utility and that it

should be assessed for local taxes as a public utility under the applicable state tax statutes.

9. A "public utility" was defined in Wisconsin to include:

[E]very corporation . . . that . . . may own, operate, manage or control any plant or equipment or any part of a plant or equipment, within the State . . . for the production, transmission, delivery, or furnishing of heat, light, water or power either directly or indirectly to or for the public.

See Cawker v. Meyer, 147 Wis. 320, 133 N.W. 157, 158 (1911).

10. Union Falls generated electrical energy, all of which was either sold to the City of Oconto Falls or used by the Falls Manufacturing Company. The Continental Paper & Bag Corporation owned the common stock of the Union Falls Power Company and the Falls Manufacturing Company. Under the contract between the City and Union Falls, the City had a prior claim to the electrical energy generated. Union Falls claimed the right to exercise power of eminent domain and had exercised that right in the past. Union Falls complied with the requirements of the Public Service Commission with respect to the filing of reports as a public utility. The court held that Union Falls was not a public utility:

The plaintiff company in this case furnishes to the city of Oconto Falls electrical energy under a contract at the specified price per electrical unit. From the very nature of the case the plaintiff company could furnish electrical energy to no other like community, but this is not wholly determinative of the question. The fact is that plaintiff company does not hold itself out as being able, ready, and

willing to serve the public. It has no schedule of rates to be charged for such services. If a customer should present itself demanding service, it has no schedule of rates which would be applicable to such a situation. The fact that the plaintiff company furnishes electrical energy to the city of Oconto Falls, which in its proprietary capacity, acting as a public utility in turn distributes it to the public, does not make the plaintiff company a public utility. If that were true then any company furnishing power to a public utility would itself become a public utility instantaneously by force of law. So far as appears from the record upon the expiration of its contract, the plaintiff company will be under no obligation to furnish further service except upon such terms as may be agreed upon between plaintiff and the city of Oconto Falls. In this case . . . the plaintiff does not deal with the public directly or indirectly. It deals with a utility, which, in turn, deals with the public.

265 N.W. at 723 (citation omitted) (emphasis added).

11. Applying the legal authorities set forth above, a power producer such as Encogen should not be deemed to be a public utility. Encogen will not hold itself out as being able, ready and willing to serve the public. It will not deal with the public, directly or indirectly. It will not compete with HELCO for sales to the public. Instead, it will sell all of its electrical energy output to HELCO, a franchised electric public utility, pursuant to the PPA. Moreover, Encogen will not have other attributes of a public utility. For example, (a) it will not have a franchised or statutory right to occupy and use the public rights of way; and (b) it will not have the right and power of eminent domain granted to public utilities by H.R.S. §101-4.

12. Thus, in this case, the Commission need not exercise jurisdiction over Encogen in order to protect the public's interest in adequate service at reasonable rates. The Commission will continue to regulate HELCO's rates and services, and the PPA is being submitted to the Commission for its review and approval.

XIX. CONCLUSION

WHEREFORE, HELCO requests that this Honorable Commission:

1. Approve the PPA;
2. Approve the Interconnection Agreement;
3. Authorize HELCO to include the purchased energy costs (and related revenue taxes) that HELCO incurs under the PPA in HELCO's ECAC for the term of the PPA;
4. Find that the energy and capacity charges to be paid by HELCO pursuant to the PPA are reasonable;
5. Authorize HELCO to include, over the term of the PPA, the power purchase costs incurred by HELCO pursuant to the PPA, including the energy and capacity payments to Encogen, in HELCO's revenue requirements for ratemaking purposes (and for purposes of determining the reasonableness of HELCO's rates);

6. Find that the buy-out and deferral clauses of the PPA are reasonable;

7. Find that HELCO's purchased power arrangements under the PPA pursuant to which HELCO will purchase energy and firm capacity from Encogen are prudent, reasonable and in the public interest;

8. Find that Encogen will not be considered a "public utility" subject to regulation by the Commission in the event the Facility loses its QF status due to simple cycle operation requested by HELCO; and

9. Grant HELCO such other and further relief as may be just and equitable in the premises.

DATED: Honolulu, Hawaii, January 16, 1998.

HAWAII ELECTRIC LIGHT COMPANY, INC.

By


EDWARD Y. HIRATA
VICE PRESIDENT

CERTIFICATE OF SERVICE

I hereby certify that I served copies of the foregoing APPLICATION, EXHIBITS "A"-"M", together with this Certificate of Service, by hand-delivery and/or mailing a copy by United States mail, postage prepaid, to the following:

Charles W. Totto (2 copies via hand-delivery)
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1001 Bishop Street
Suite 2200, Pacific Tower
Honolulu, HI 96813

DATED: Honolulu, Hawaii, January 16, 1998.

HAWAII ELECTRIC LIGHT COMPANY, INC.



STATE OF HAWAII)
)
CITY AND COUNTY OF HONOLULU) ss.

EDWARD Y. HIRATA, being first duly sworn, on oath, deposes and says: That he is a Vice President of Hawaii Electric Light Company, Inc., the within-named applicant; that he makes this verification for and on behalf of said applicant and is authorized so to do; that he has read the foregoing Application, knows the content thereof, and that the same are true.


EDWARD Y. KLIRATA

Subscribed and sworn to before me
this 16th day of January, 1998.

25 Mauro S. Long
Notary Public, State of Hawaii

My commission expires: 3-5-2000

CA-IR-452
DOCKET NO. 05-0315
ATTACHMENT 1
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PAGE 1 OF 169

EXECUTION COPY

POWER PURCHASE AGREEMENT

between

ENCOGEN HAWAII, L.P.

and

HAWAII ELECTRIC LIGHT COMPANY, INC.

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POWER PURCHASE AGREEMENT
between
ENCOGEN HAWAII, L.P.
and
HAWAII ELECTRIC LIGHT COMPANY, INC.

THIS AGREEMENT ("Agreement") is made as of this 22nd day of October, 1997 ("Execution Date"), by and between HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), a Hawaii corporation, with principal offices in Hilo, Hawaii, and ENCOGEN HAWAII, L.P. ("SELLER"), a Delaware limited partnership, with principal offices in Dallas, Texas, doing business in Hawaii.

WITNESSETH:

WHEREAS, HELCO is a regulated public utility engaged in the business of generation, purchase, transmission and distribution of electric power to customers on the Island of Hawaii, Hawaii; and

WHEREAS, pursuant to the terms and conditions set forth herein, HELCO desires to purchase electric power from SELLER and dispatch such electric power; and

WHEREAS, SELLER is organized for the purpose of designing, constructing, owning, operating and maintaining a sixty megawatt (60 MW) (net) cogeneration facility on property leased or purchased by SELLER at Haina, Hawaii; and

WHEREAS, SELLER intends to operate such facility as a Qualifying Facility as defined in PURPA, 18 Code of Federal Regulations ("CFR") Part 292, and Title 6, Chapter 74 of the Hawaii Administrative Rules; and

WHEREAS, HELCO's willingness to enter into this Agreement and to purchase electricity at the rate set forth in this Agreement is based upon the expectation that HELCO will recover capacity and energy payments made to SELLER through electric rates paid by its customers and adjusted to reflect changing purchased energy costs by means of a periodic rate adjustment mechanism such as the Energy Cost Adjustment Clause authorized by the Hawaii Public Utilities Commission ("PUC"); and

WHEREAS, HELCO's willingness to enter into this Agreement is based on SELLER's assurances that SELLER can and will perform all of its obligations hereunder in a manner that will ensure no degradation in the quality of service provided HELCO's customers because of SELLER's construction, ownership, operation, and maintenance of the Facility or in any other manner.

NOW THEREFORE, in consideration of these premises and of the mutual promises contained herein, the parties hereto agree that the following terms and conditions shall govern the sale and transfer of electricity by SELLER and the purchase and acceptance of such electricity by HELCO and other related transactions:

ARTICLE I - DEFINITIONS

For the purposes of this Agreement, the following terms shall have the meanings as indicated below:

Allowance for Funds Used During Construction (AFUDC) - The capital carrying costs incurred by HELCO during the development and construction of a capital project which are capitalized as a cost of plant on the books of HELCO in accordance with methods approved by the PUC.

Allowed Simple Cycle Period - Shall have the meaning set forth in Section 3.2C(27).

American National Standards Institute Code for Electricity Metering - The publication of the American National Standards Institute which establishes acceptable performance criteria for new types of watt hour meters, demand meters, demand registers, instrument transformers and auxiliary devices. It states acceptable in-service performance levels for meters and devices used in revenue metering. It also includes information on related subjects, such as recommended measurement standards, installation requirements and test schedules.

Annual Dispatch Notice - The notice provided by HELCO to SELLER each calendar year in accordance with Section 3.3A(3), which shows the amount of capacity and energy HELCO expects the Facility to produce on an hourly basis for the following calendar year.

Audit Period - Shall have the meaning in Section 3.3B(1).

Billing Period - For any computation of Capacity Charge or Energy Charge payments, the immediately preceding Calendar Month.

Business Day - Any day other than a Saturday, Sunday or legal holiday of either the United States or the State of Hawaii.

Buyout Payment - Shall have the meaning in Section 3.3B(1).

Calendar Month - The period commencing at 12:01 a.m. on the first day of any month and terminating at midnight on the last day of the same month.

Capacity Charge - The amount to be paid by HELCO to SELLER pursuant to Section 5.1B of this Agreement.

Capacity Rate - The rate by which Capacity Charge is calculated pursuant to Section 5.1B of this Agreement.

Capacity Test - The Initial Acceptance Test performed by SELLER in accordance with Section 3.2C(22) prior to the Phase 1 In-Service Date and the Phase 2 In-Service Date, as the case may be, to determine Firm Capacity, or a subsequent Capacity Test.

Catastrophic Equipment Failure - Either (A) a sudden unexpected failure of a major piece of equipment which (1) substantially reduces or eliminates the capability of the Facility to produce power, (2) is beyond the reasonable control of SELLER and could not have been prevented by the exercise of reasonable due diligence by SELLER, and (3) despite the exercise of all reasonable efforts, actually requires more than 60 days to repair (if the determination of whether a Catastrophic Equipment Failure has occurred is being made more than 60 days after the failure) or is reasonably expected to require more than 60 days to repair (if such determination is being made within 60 days after the failure); or (B) a sudden, unexpected failure of a combustion turbine blade or a steam turbine blade which requires opening a gas turbine (or compressor) or steam turbine casing to repair and which meets the criteria in both (A)(1) and (A)(2) above.

Closing Date - The date on which the closing of long-term, non-recourse construction and term financing of the Facility under the Financing Documents occurs.

Committed Capacity - During the Phase 1 Period, twenty-two thousand kilowatts (22,000 kW) of reliable electrical capacity which SELLER agrees herein to make available to HELCO from the Facility at the Metering Point under HELCO Dispatch. During the Phase 2 Period, sixty thousand kilowatts (60,000 kW) of reliable electrical capacity which SELLER agrees herein to make available to HELCO from the Facility at the Metering Point under HELCO Dispatch, unless adjusted as a result of a subsequent Capacity Test at the end of the Corrective Period pursuant to Section 5.1B, if any, or by agreement of the parties.

Conditions Precedent - The conditions listed in Section 2.3A.

Consent to Assignment - Shall have the meaning in Section 23.12.

Consents - All necessary consents to be executed in favor of HELCO in order for HELCO to establish, exercise and enforce its rights under the Security Agreement, the Mortgage, and the other Security Documents, as such consents may be amended from time to time in accordance with the terms thereof.

Consultation Period - The period defined in Section 3.3C(2).

Contract Year - A 12 Calendar Month period which begins on the first day of the calendar year following the Phase 2 In-Service Date; provided, however, that if the Phase 2 In-Service Date does not occur on January 1 of a given year, the initial Contract Year shall consist of the period from the Phase 2 In-Service Date to December 31 of that calendar year.

Corrective Period - The period defined in Section 5.1B(3)(a)

CT - Shall mean combustion turbine and related equipment.

Deferral Costs - Shall have the meaning in Section 3.3C(1).

Deferral Fee - Shall have the meaning in Section 3.3C(1).

Dispatch Constraints - The constraints and procedures with respect to the operation of the Facility set forth in Section 3.2C, which shall include equipment-related constraints on HELCO's ability to dispatch the Facility.

Dispatch Notice - The notice given to SELLER by HELCO in accordance with Section 3.3A(3), instructing SELLER to operate the Facility at a requested capacity, expressed in kW, until modified by a subsequent Dispatch Notice.

DoH - The State of Hawaii Department of Health.

Dollars - The lawful currency of the United States of America.

End of Phase 2 Start-Up - The date that is 12 months following the Phase 2 In-Service Date.

Energy Charge - The amount to be paid by HELCO to SELLER pursuant to Section 5.1A of this Agreement for the energy delivered to HELCO's electrical system from the Facility as measured at the Metering Point.

Energy Cost Adjustment Clause - The cost recovery mechanism established by the PUC rules whereby the base electric energy rates charged to retail customers are adjusted to account for fluctuations in the costs of fuel and purchased energy or such successor provision that may be established from time to time.

EMS (Energy Management System) - The real-time, computer-based control system, or any successor thereto, used by HELCO, now or in the future, to manage the supply and delivery of electrical energy to its consumers. It provides power system operators with an integrated set of manual and automatic functions necessary for the operation of the power system under both normal and emergency conditions. The major functions of the EMS include security monitoring (system surveillance), supervisory control, generation control (automatic generation control, economic dispatch control, and generation dispatch studies) and security (on-line load-flow analysis and contingency evaluation).

EAF (Equivalent Availability Factor) - The ratio (in percent) calculated in accordance with the formula, terms and concepts defined by NERC GADS, based on the Net Maximum Capacity of the Facility, unless otherwise defined in this Agreement.

EFOR (Equivalent Forced Outage Rate) - The ratio (in percent) calculated in accordance with the formula, terms and concepts defined by NERC GADS, based on the Net Maximum Capacity of the Facility, unless otherwise defined in this Agreement.

Event of Default - An event or occurrence specified in Section 7.1A or 7.1B.

EWG (Exempt Wholesale Generator) - Shall have the meaning given it in the Energy Policy Act of 1992, 15 U.S.C. Section 79z-5a.

Execution Date - The date referred to in the first paragraph of this Agreement.

Facility - All real estate, equipment, fixtures and property owned, leased, controlled, operated or managed in connection with the production and delivery of electric energy by SELLER to HELCO's electrical system including, without limitation, that cogeneration facility more fully described in Sections 2.1A and B to be designed, built, owned and operated under this Agreement by SELLER on the site leased or purchased by SELLER at Haina, Hawaii, together with all equipment, fuel and other expendables, transformers, switchgear, protective devices, fuel handling and residue disposal infrastructure, and other associated property, both real and personal, necessary for proper operation of the Facility, up through SELLER's step-up transformer high voltage bushing cable connector. Notwithstanding the above, between the time of the Phase 1 In-Service Date and the Phase 2 In-Service Date, the Facility shall consist of that portion of the Facility necessary to produce a net electrical generating capability at the Metering Point of approximately twenty-two thousand kilowatts (22,000 kW).

Facility Functional Description - The description of the Facility as described in Section 2.1B.

Financing Documents - The loan agreements, notes, indentures, security agreements, leases (including cross-border leases or leases involving sale-leaseback transactions) and other agreements, documents and instruments relating to the construction financing and permanent financing (including refinancing and amendments) of the Facility by SELLER, as the same may be modified or amended from time to time in accordance with the terms thereof.

Financing Parties - Any and all lenders and equity investors, other than the Guarantor(s), or any person affiliated therewith, providing construction financing or permanent financing (including refinancing) for the Facility and any and all nominees, trustees and collateral agents associated therewith. For purposes of any notices herein required to be delivered by HELCO to the Financing Parties, it shall be sufficient for HELCO to deliver such notices to the party designated under the Financing Documents as the collateral agent, agent, trustee or nominee for such Financing Parties.

Firm Capacity - The amounts of capacity which SELLER declares for the Facility in accordance with Section 3.2C(22): (i) at the time of the Phase 1 In-Service Date and Phase 2 In-Service Date, respectively; (ii) at the end of the Corrective Period pursuant to Section 5.1B(3)(c); or (iii) at the time of subsequently agreed-upon test periods in which SELLER proposes to adjust the Firm Capacity in accordance with the procedures set forth in "Attachment L"; provided, however, that HELCO's System Operator may specify a lower level of electric output for portions of the forty-eight (48) hour test period and the Firm Capacity may still be declared without taking into account the reduction specified by HELCO's System Operator if the Facility thereafter returns to the declared level during the test period or the level requested by HELCO's

System Operator, whichever is lower. The Firm Capacity shall not exceed Committed Capacity except as otherwise provided in this Agreement, or by agreement of the parties.

Fixed O&M Component - Shall have the meaning in Section 5.1B.

Force Majeure - Any event defined in Section 15.1 as a Force Majeure event.

Fuel - Naphtha or No. 2 fuel oil or any replacement or substitute fuel determined by SELLER to be suitable for the operation of the Facility in accordance with this Agreement, applicable permits and equipment manufacturer specifications relating to the Facility.

Fuel Supply Agreement - The agreement, a copy of which is delivered to HELCO pursuant to Section 2.3A(2)(i), under which SELLER obtains Fuel for the Facility.

General Manager - The person appointed by SELLER to act as general manager for the Facility.

Good Engineering and Operating Practices - The practices, methods and acts engaged in or approved by a significant portion of the electric utility industry for similarly situated U.S. facilities, considering geographic and other characteristics, that at a particular time, in the exercise of reasonable judgment in light of the facts known or that reasonably should be known at the time a decision is made, would be expected to accomplish the desired result in a manner consistent with law, regulation, reliability, safety, economy and expedition. With respect to the Facility, Good Engineering and Operating Practices include, but are not limited to, taking reasonable steps to ensure that:

1. Adequate materials, resources and supplies, including Fuel, are available to meet the Facility's needs under normal conditions and reasonably anticipated abnormal conditions.
2. Sufficient operating personnel are available and are adequately experienced and trained to operate the Facility properly, efficiently and within manufacturer's guidelines and specifications and are capable of responding to emergency conditions.
3. Preventive, predictive, routine and non-routine maintenance and repairs are performed on a basis that ensures reliable, long-term and safe operation consistent with manufacturer's recommendations, and are performed by knowledgeable, trained and experienced personnel utilizing proper equipment, tools, and procedures.
4. Appropriate monitoring and testing is done to ensure that equipment is functioning as designed and to provide assurance that equipment will function properly under both normal and emergency conditions.
5. Equipment is operated in a manner safe to workers, the general public and the environment and in accordance with equipment manufacturer's specifications, including, without limitation, defined limitations such as steam pressure, temperature, moisture content, chemical

content, quality of make-up water, operating voltage, current, frequency, rotational speed, polarity, synchronization, control system limits, etc.

GDPIPD (Gross Domestic Product Implicit Price Deflator) - The value shown in the United States Department of Commerce, Bureau of Economic Analysis' publication entitled "Survey of Current Business" for the percentage change in prices over each quarter of the year associated with the Gross Domestic Product for the immediately preceding quarter, or, a successor publication or index.

Guarantee(s) - The Guarantee Agreement(s) in the form of Attachment T between HELCO and Guarantor(s), as the same may be modified or amended from time to time in accordance with the terms thereof.

Guaranteed Amount - The amount described in Section 21.2.

Guarantor(s) - The entity or entities which guarantee SELLER's obligations under this Agreement in accordance with the Guarantee(s) and with Article XXI hereof.

Hawaiian Electric Industries, Inc. - The holding company incorporated in 1983 under the laws of Hawaii and having Hawaiian Electric Company, Inc., the parent company of HELCO, and other companies as its subsidiaries.

HELCO Dispatch - HELCO's right, through supervisory equipment or otherwise, to direct or control (if EMS is applicable) both the capacity and the energy output of the Facility subject to the Dispatch Constraints, which dispatch shall include real power, reactive power, voltage, frequency, the number of Facility units on-line to meet an electrical output requirement, including the determination to cycle a unit or units off-line, require a unit to run in simple cycle mode when not able to operate in combined cycle mode, the distribution of electrical output among the Facility units on-line, the droop control setting of each on-line unit, the ramp rate setting of each on-line unit, and other characteristics of such energy output whose parameters are normally controlled or accounted for in a utility dispatching system.

HELCO's System Operator - The individual designated by job position as HELCO's representative to act on behalf of HELCO on all issues regarding the daily dispatch of all generation being supplied to HELCO's electrical system.

In-Service Date Deadline(s) - The date(s) described as such in Section 3.2A(3).

Initial Acceptance Test - The initial acceptance test for Phase 1 or Phase 2, performed in accordance with the procedure set forth in "Attachment L".

Independent Engineering Assessment - the determination by a Qualified Independent Engineer made pursuant to Section 3.3D(1).

Interconnection Agreement - the agreement between HELCO and SELLER in the form attached as "Attachment E" which sets forth the parties' respective rights and obligations with

respect to the design, installation, operation, ownership and cost responsibility for the facilities necessary to interconnect the Facility with HELCO's electrical system.

Interconnection Facilities - Shall have the meaning attributed to it in the Interconnection Agreement.

kVAR - Kilovar(s)

kVARh - Kilovar-hour(s)

kW - kilowatt(s).

kWh - kilowatt-hour(s).

Late Charges - Shall have the meaning set forth in Section 2.4B.

Liquidated Damages - Shall mean any of the Liquidated Damages provided for in Article VIII.

Maintenance Account - Shall have the meaning set forth in Section 8.3.

Major Equipment Overhaul - Shall mean combustion-turbine hot section overhaul or replacement, complete turbine overhaul or replacement, steam turbine overhaul or replacement or other major scheduled maintenance conducted (i) in accordance with the equipment manufacturer's recommendations or (ii) otherwise in the judgment of SELLER in accordance with Good Engineering and Operating Practices.

Metering Point - The physical point located on the high side of the step up transformer, as depicted in "Attachment A" at which HELCO's metering is connected to the Facility for the purpose of measuring the output of the Facility in kilowatts, kilowatt-hours, kilovars and kilovarhours.

Milestone Dates - The dates in "Attachment B" for completion of certain critical path activities.

Milestone Events - The events described in "Attachment B."

Monthly Fuel Oil Adjusted Factor Filing - HELCO's filing, from time to time, which includes certain charges relating to the cost of delivered No. 2 fuel oil at Keahole, Hawaii.

Monthly Invoice - The monthly billing document described in Section 6.1.

Mortgage - The mortgage, assignment of rents and security agreement to be executed by SELLER, in accordance with Section 3.1E, in favor of HELCO, granting to HELCO a mortgage and a lien on, among other things, SELLER's right, title and interest in and to the Facility, the Site (including any lease or sublease associated therewith, together with assignment of rents

under any such lease or sublease) and the rights and interests of SELLER associated therewith, as the same may be modified or amended from time to time in accordance with the terms thereof.

Motion for Reconsideration - a motion to the PUC for reconsideration, rehearing, further hearing, or modification, suspension, vacation, or a combination thereof, of a PUC Order.

MW - Megawatt(s).

Net Electric Energy Output - For any period of time, the total electric energy output of the Facility in kWh (net of auxiliaries) as measured at the Metering Point of the Facility.

Net Maximum Capacity - The maximum capacity the Facility can sustain over a specified period of time when not restricted by seasonal or other deratings less capacity utilized for the Facility's station service or auxiliaries, as measured at the Metering Point, plus transformer losses (which for purposes of this Agreement shall be deemed zero); provided that, in no event shall the Net Maximum Capacity exceed the Firm Capacity.

Net Salvage Proceeds - Shall have the meaning set forth in Section 3.3B(1).

NERC GADS (North American Electric Reliability Council Generating Availability Data System) - The data collection system called "Generating Availability Data System" which is utilized by the North American Electric Reliability Council, a voluntary organization formed by the electric utility industry to promote the reliability and adequacy of the bulk power supply of the electric utility systems in North America. For purposes of this Agreement, the version of NERC GADS dated October, 1996 (selected portions of which are attached hereto as "Attachment C") shall be used whenever reference is made to NERC GADS. In the event that the definition of a term contained in this Article I is inconsistent with the definition of the term under NERC GADS, the definition contained in this Article I shall control.

Non-appealable PUC Approval Order - A PUC Approval Order that is a Non-appealable PUC Order.

Non-appealable PUC Order - (1) A PUC Order that is not subject to appeal to any Circuit Court of the State of Hawaii or the Supreme Court of the State of Hawaii, because the thirty (30) day period permitted for such an appeal has passed without the filing of notice of such an appeal, or (2) a PUC Order that was affirmed on appeal to any Circuit Court of the State of Hawaii or the Supreme Court, or the Intermediate Appellate Court upon assignment by the Supreme Court, of the State of Hawaii, or was affirmed upon further appeal or appellate process, and that is not subject to further appeal, because the jurisdictional time permitted for such an appeal (and/or further appellate process such as a motion for reconsideration or an application for writ of certiorari) has passed without the filing of notice of such an appeal (or the filing for further appellate process).

Phase 1 - The portion of the Facility consisting of the first combustion turbine generator and related facilities, put into commercial operation with a Firm Capacity as determined at the Phase 1 In-Service Date.

Phase 1 In-Service Date - The date, after satisfying the applicable Conditions Precedent, on which SELLER declares Phase 1 of the Facility as ready to be placed in service, based on actual operation of the Facility, under HELCO Dispatch and in accordance with all the terms and conditions of this Agreement, at an electric output level of at least nineteen thousand kilowatts (19,000 kW) (net) at the Metering Point, and at such other lower levels consistent with Section 3.3A(1) as specified by HELCO's System Operator, during a Capacity Test, such Capacity Test having been scheduled on the start-up plan provided by SELLER to HELCO in accordance with Section 5.1.

Phase 1 In-Service Date Deadline - The date described as such in Section 3.2A(3).

Phase 1 Period - The time from the Phase 1 In-Service Date through the day before the Phase 2 In-Service Date.

Phase 2 - The full Facility consisting of Phase 1 plus the second combustion turbine generator and the steam turbine generator, and related facilities, put into commercial operation with a Firm Capacity as determined at the Phase 2 In-Service Date.

Phase 2 In-Service Date - The date on which SELLER declares Phase 2 of the Facility as ready to be placed in service, based on actual operation of the Facility, under HELCO Dispatch and in accordance with all the terms and conditions of this Agreement, at an electric output level of at least forty-two thousand kilowatts (42,000 kW) (net) at the Metering Point, and at such other lower levels consistent with Section 3.3A(1) as specified by HELCO's System Operator, during a Capacity Test, such Capacity Test having been scheduled on the start-up plan provided by SELLER to HELCO in accordance with Section 5.1.

Phase 2 In-Service Date Deadline - The date described as such in Section 3.2A(3).

Phase 2 Period - The time from the Phase 2 In-Service Date through the end of the Term.

Point of Interconnection - Shall have the meaning attributed to it in the Interconnection Agreement.

Pre-Deferral Estimate - Shall have the meaning in Section 3.3C(1).

Prime Rate - The base interest rate for large commercial loans to credit-worthy entities charged by the Bank of Hawaii in Honolulu, Hawaii and announced as its Prime Rate, as such rate may be in effect from time to time.

Project Costs Incurred - Shall have the meaning attributed to it in Section 3.3B(1).

Project Documents - This Agreement, the Thermal Energy Sales Contract, fee title or any ground lease or other lease in respect of the Site, all construction contracts to which SELLER is or becomes a party thereto, fuel supply contracts to which SELLER is or becomes a party thereto, operation and maintenance agreements, interconnection agreements in respect of the Facility and all other agreements, documents and instruments to which SELLER is or becomes a

party thereto in respect of the Facility, other than the Financing Documents and the Security Documents, as the same may be modified or amended from time to time in accordance with the terms thereof.

PSD Permit - That "Covered Source/Prevention of Significant Deterioration" permit/authority to construct to be issued in favor of the Facility by the DoH.

PUC (Public Utilities Commission) - The Public Utilities Commission of the State of Hawaii.

PUC Approval Date - The date defined in Section 2.2F.

PUC Approval Order - The decision and order of the PUC approving the application or motion filed by the parties seeking approval of this Agreement as described in Section 23.14.

PUC Order - The decision and order of the PUC responding to the application or motion filed by the parties seeking approval of this Agreement as described in Section 23.14.

PUC Order Date - The date upon which the PUC Order is issued.

PUC Submittal Date - The date of submittal of HELCO's complete application or motion for approval of this Agreement pursuant to Section 23.14.

PURPA - Public Utility Regulatory Policies Act of 1978 (P.L. 95-617) as amended from time to time and as applied in Hawaii by the Public Utilities Commission.

QF Requirements - As defined in Section 3.2L.

Qualified Independent Engineer - Any engineer listed on the Qualified Independent Engineer's List, as such list is amended from time to time.

Qualified Independent Engineer's List - The list of Qualified Independent Engineers attached hereto as "Attachment H" and created and modified from time to time pursuant to Section 3.3D(1).

QF (Qualifying Facility) - A facility that meets the criteria established under PURPA and 18 CFR Part 292, and Title 6, Chapter 74 of the Hawaii Administrative Rules.

QLPU (Quick Load Pick Up) - The ability of a generating unit to pick up and sustain a stated percentage of its Spinning Reserve within a given number of seconds.

Reserve Shutdown - The status of a generator that has been taken off-line at the direction of HELCO's System Operator, as determined in accordance with NERC GADS.

Salvage Period - Shall have the meaning in Section 3.3B(1).

Second Notice - The notice described in Section 3.3D(1).

Security Agreement - The Security Agreement to be executed by SELLER in favor of HELCO in accordance with Section 3.1E granting HELCO a security interest in, among other things, all of SELLER's right, title and interest in and to the Facility, the Project Documents, all accounts established pursuant to the Project Documents, all insurance proceeds in respect of the Facility and all proceeds of the foregoing, as the same may be modified or amended from time to time in accordance with the terms thereof.

Security Documents - The Security Agreement, the Mortgage, and the Consents, together with all uniform commercial code financing statements and other agreements, consents, documents and instruments executed in connection therewith, as the same may be modified or amended from time to time in accordance with the terms thereof.

Settlement Date - The date defined in Section 3.3B(1).

Simple Cycle - The operation of the Facility without the ST operating.

Site - The contiguous piece of real property upon which the electric operation and related non-real property portions of the Facility are located, as further described in Section 2.1C.

Site Rep - HELCO's representative as described in Section 9.5.

Spinning Reserve - The difference between the load currently carried on the Facility while synchronized and on-line and the Facility's Net Maximum Capacity, both measured at the same instant in time.

Substation - The assemblage of equipment that switches and/or changes or regulates the voltage of electricity delivered to HELCO's electrical system from the Facility as indicated in "Attachment A."

ST - The steam turbine and related equipment.

Subordination Agreement - Shall have the meaning in Section 3.1E(1).

Term - The term of this Agreement as defined in Section 2.6.

Thermal Energy Sales Contract(s) - The contract(s) between SELLER and an industrial thermal energy buyer for the sale by SELLER of thermal energy.

Transition Period - The period of time between the End of Phase 2 Start-Up and the start of the next Contract Year.

Unit Trips - The sudden and immediate removal of one (1) or more of the Facility's generator(s) from service as a result of immediate mechanical/electrical/hydraulic control system trips or operator initiated action which causes a similar immediate removal from service; provided, however, that Unit Trips shall not include: (1) any removal of a generator which occurs within one (1) hour of when that particular unit was synchronized or resynchronized; or (2) trips caused or initiated by HELCO other than pursuant to Section 4.1 in circumstances

described in Section 4.1A. Unit Trips shall be counted as follows for each incident, whether or not during an incident the loss of multiple generators is simultaneous: (i) two (2) Unit Trips result when two (2) combustion turbines go off-line; (ii) two (2) Unit Trips result when one (1) combustion turbine and the steam turbine go off-line unless at the time of the incident only one (1) combustion turbine was on-line and in that event, only one (1) Unit Trip results; (iii) one (1) Unit Trip results when one (1) combustion turbine goes off-line; and, (iv) one (1) Unit Trip results when the steam turbine goes off-line. (Until such time that HELCO is operating its electrical system under a criteria that mandates Spinning Reserve to cover loss of the largest unit on the system, the removal of any of the Facility's boilers or generators that is (1) not in conformance with HELCO Dispatch and (2) directly results in HELCO having to temporarily disrupt the delivery of electric service to any HELCO customers shall also be considered a Unit Trip.)

U.S. EPA - The United States Environmental Protection Agency.

Variable O&M Component - Shall have the meaning in Section 5.1A.

Weekly Unit Commitment Schedule - The written notice delivered in accordance with Section 3.3A(3), stating for each day of the following week the times at which all generating facilities on HELCO's electrical system shall start up and shut down.

60-Month Schedule - Shall have the meaning in Section 3.2C(8).

ARTICLE II - SCOPE OF AGREEMENT

2.1 General Description

A. Basic Concept

SELLER will design, construct, own, operate and maintain an approximately sixty thousand kilowatt (60,000 kW) (net) cogeneration facility to produce electricity and thermal energy at Haina, Hawaii. The Facility will be constructed in two phases. Phase 1 is intended to be placed in commercial operation prior to Phase 2 and will consist of a single CT. Phase 2 of the Facility will consist of two CTs and an ST. Following the Phase 1 In-Service Date and during the Term of this Agreement, electricity from the Facility will be sold to HELCO under HELCO Dispatch for use in HELCO's electrical system. The Facility shall be designed, constructed, operated and maintained by SELLER so that it will be available on the schedule provided for herein and shall thereafter be available for service within the parameters set forth herein.

B. Facility Specifications

The Facility Functional Description is attached to this Agreement as "Attachment D." The single-line diagram in "Attachment A" shall expressly identify the Point of

Interconnection of the Facility to HELCO's electrical system. The Facility Functional Description includes all facilities required for importation, receipt, storage and handling of fuel, waste collection, interim and final waste disposal, condenser cooling water and any other facilities necessary for proper operation of the Facility, except as herein provided.

C. Site

The Site for the Facility will be located at Haina, Hawaii. The location and Facility layout are more particularly described in "Attachment F."

D. Electric Specifications

Power supplied by SELLER hereunder shall be in the form of three-phase, 60 Hertz alternating current, at a nominal operating voltage of thirteen thousand eight hundred (13,800) volts and power factor dispatchable in the range of 0.85 lagging to 0.98 leading as measured at the Metering Point to maintain system operating parameters as specified by HELCO, with a minimum net generation design capacity of sixty thousand kilowatts (60,000 kW) for the full Facility in combined cycle mode. Not later than thirty (30) days after the PUC Approval Date, SELLER and HELCO shall reasonably mutually agree in writing to additional standards, if any, for the quality of electricity, including but not limited to standards for voltage flicker and generation of harmonic frequencies, that shall apply to the electricity generated by SELLER.

E. Fuel and Other Expendables

SELLER will contract for, acquire or otherwise provide for a reliable supply of Fuel and other expendables necessary to operate the Facility.

2.2 Effective Date/Regulatory Approval

A. Effective Date of Agreement

This Agreement shall become effective on the Execution Date, provided, that, notwithstanding the foregoing, prior to the PUC Approval Date (i) in no event shall SELLER be obligated to sell capacity and energy to HELCO, or have any other obligations to HELCO other than those set forth in Sections 2.2, 2.3A, 2.7, 3.2A(1) (only as to obligations with respect to design and acquiring land rights) (2) (4) and (5), 3.3B, 3.3C, Articles XI, XIII, XIV, XV, XVII, XIX, XXII and XXIII and (ii) in no event shall HELCO be obligated to make any payments provided for herein to Seller or have any other obligations to SELLER other than those set forth in Sections 2.2, 2.3B, 2.7, 3.1E, 3.2A(4) and (5), 3.3B and 3.3C and Articles XI, XIV, XV, XVII, XIX, XXII and XXIII.

B. Effect of Delay or Denial of PUC Approval

If, despite the best efforts of the parties, neither a PUC Approval Order nor a PUC Order partially or conditionally approving this Agreement that is subject to Section 2.2D or Section 2.2E hereof, is obtained within twelve (12) months of the PUC Submittal Date, HELCO

or SELLER may, by written notice delivered within thirty (30) days of such date, declare this Agreement null and void and the parties hereto shall thereafter be free of all obligations hereunder and shall pursue no further remedies against one another, except as provided in Article XI and Section 2.2H hereof; provided, however, that, notwithstanding delivery of such notice, the date specified above may be extended by a subsequent written agreement. During the period until twelve (12) months following the PUC Submittal Date, and any period of extension, SELLER and HELCO shall be each obligated to continue performance of their obligations under this Agreement which are by their terms applicable prior to the PUC Approval Date. If neither party elects to terminate within the time frame stated above, this Agreement shall continue in full force and effect, subject to the other provisions of the Article II.

C. Effect of Delay in Obtaining Non-Appealable PUC Approval Order

If, despite the best efforts of the parties, a Non-appealable PUC Approval Order is not obtained within twenty-four (24) months from the PUC Submittal Date, SELLER may, by written notice delivered to HELCO within thirty (30) days of such date, declare this Agreement null and void and the parties shall thereafter be free of all obligations hereunder and shall pursue no further remedies against one another, except as provided in Article XI and Section 2.2H hereof; provided, however, that, if SELLER does not elect to terminate within the time frame stated above, this Agreement shall continue in full force and effect, subject to the other provisions of Article II.

D. Effect of Partial Approval of Payment Terms

In the event that the initial PUC Order does not allow for the recovery by HELCO of the full power purchase costs under this Agreement (i.e., capacity payments and energy payments as well as other costs) in HELCO's base rates and/or Energy Cost Adjustment Clause, as the case may be, in the amounts agreed to in this Agreement, but the PUC Order is otherwise satisfactory to HELCO and SELLER in all other material respects, then SELLER has the option to (1) accept such lower payment rates as are approved by the PUC, in which case the parties shall make conforming changes to this Agreement; (2) seek reconsideration, which Motion shall be filed no later than 30 days after the issuance date for the PUC Order, and, if unsuccessful, appeal the PUC's determination, in which case, SELLER shall have accepted such lower power purchase costs provided for in the PUC Order, pending the outcome of such actions; or (3) terminate this Agreement by written notice delivered within thirty (30) days of the earlier of (i) the issuance date of such initial PUC Order, or (ii) the date twenty-four (24) months following the PUC Submittal date, without further liability or obligation except as provided in Articles XI and Section 2.2H hereof. If SELLER elects to proceed under clause (2) above, and is unsuccessful in obtaining a Non-appealable PUC Approval Order, then SELLER shall be deemed to have accepted the lower power purchase costs provided for in the final PUC Order, in which case the parties shall make conforming changes to this Agreement. If SELLER does not elect to proceed under clause (2) above, and does not terminate this Agreement by timely written notice under clause (3) above, SELLER shall be deemed to have elected to proceed under clause (1) above. provided that if higher allowed power purchase costs are subsequently

authorized by the PUC. HELCO shall be obligated to pay SELLER such additional amounts for which actual recovery subsequently has been approved by the PUC.

E. Conditional PUC Approval

If the initial PUC Order requires any material change to this Agreement, imposes any material condition upon such approval, or rejects a material provision of this Agreement, the parties shall promptly meet to determine in good faith whether it is in the parties' mutual interest to seek reconsideration from the PUC. If the parties do not determine within thirty (30) days of the PUC Order to seek reconsideration, or the parties determine to proceed with such reconsideration but are not successful in obtaining a PUC Approval Order without such change, condition or rejection within ninety (90) days of the PUC Order, either party may, by written notice delivered to the other party within ten (10) days after expiration of the foregoing thirty (30) day or ninety (90) day periods, as applicable, elect to renegotiate this Agreement. If such notice of intent to renegotiate this Agreement is delivered, the parties shall (A) use their best efforts and negotiate in good faith to agree within three (3) months from such notice upon a mutually satisfactory amendment to this Agreement, which to the extent possible eliminates any material adverse effect on either party and preserves the economic and operational arrangements between the parties as set forth in this Agreement, and (B) resubmit this Agreement, as so amended, to the PUC for approval of the Agreement, as amended. If, despite good faith efforts, the parties are unable to reach agreement on a satisfactory amendment within such three (3) month period, or obtain PUC approval of such amended agreement within six (6) months of the date of submittal to the PUC, or if a notice of intent to renegotiate this Agreement is not delivered, the party which is materially adversely affected by such change, condition or rejection may, upon written notice delivered to the other party within thirty (30) days of the earlier of (i) expiration of the foregoing three (3) month, six (6) month, or ten (10) day periods, as applicable, or (ii) the date twenty-four (24) months following the PUC Submittal Date, elect to terminate this Agreement, without any further liability or obligation to the other party except as provided in Article XI and Section 2.2H hereof. If a party that is materially adversely affected by such material change, condition or rejection does not terminate this Agreement by timely written notice, the materially adversely affected party shall be deemed to have accepted such material change, condition or rejection, and the parties shall make conforming changes to this Agreement.

F. PUC Approval Date The PUC Approval Date shall be defined as follows:

(1) If a PUC Approval Order is issued, and is not made subject to a Motion for Reconsideration or an appeal, the PUC Approval Date shall be thirty (30) days after the issuance date of the PUC Approval Order.

(2) If the PUC Approval Order becomes subject to a Motion for Reconsideration, and the Motion for Reconsideration is denied or the PUC Approval Order is affirmed after reconsideration, and such order is not made subject to an appeal, the PUC Approval Date shall be deemed to be the issuance date of the order denying reconsideration or affirming the PUC Approval Order.

(3) If the initial PUC Order is subject to Section 2.2D or Section 2.2E, and this Agreement is not terminated pursuant to the provisions of such Sections, the PUC Approval Date shall be the earlier of (i) the date upon which the right to terminate pursuant to Section 2.2D or Section 2.2E, as the case shall be, shall cease, or (ii) the date twenty-four (24) months following the PUC Submittal Date.

(4) If the PUC Approval Order, or an order denying reconsideration of the PUC Approval Order or affirming approval of the PUC Approval Order after reconsideration, becomes subject to an appeal, then the PUC Approval Date shall be the earlier of (i) the date upon which the PUC Approval Order becomes a Non-appealable PUC Approval Order, or (ii) the date twenty-four (24) months following the PUC Submittal Date.

G. Effect of Reconsideration or Appeal of PUC Approval Order

(1) If the PUC Approval Order is vacated or reversed in whole or in material part, or is materially modified, by the PUC after reconsideration, such that the resulting PUC Order is no longer a PUC Approval Order, and is not a PUC Order partially or conditionally approving this Agreement that would be subject to Section 2.2D or Section 2.2E hereof if it were an initial PUC Order (in which event the parties shall proceed in accordance with Section 2.2D or Section 2.2E, as the case may be), the parties shall seek reinstatement of the PUC Approval Order. If such efforts are not successful within twenty-four (24) months from the PUC Submittal Date, HELCO or SELLER may, by written notice delivered within thirty (30) days of such date, declare this Agreement null and void and the parties shall thereafter be free of all obligations hereunder and shall pursue no further remedies against one another, except as provided in Article XI and Section 2.2H hereof. In seeking reinstatement of the PUC Approval Order, HELCO may, but shall not be required to, initiate or join in a Motion for Reconsideration or an appeal from the resulting PUC Order, unless HELCO is a required or necessary party to such Motion for Reconsideration.

(2) If the PUC Approval Order is vacated, reversed or held invalid, void or unlawful in whole or in material part, or the PUC Approval Order is materially modified such that the resulting PUC Order is no longer a PUC Approval Order, and is not a PUC Order partially or conditionally approving this Agreement that would be subject to Section 2.2D or Section 2.2E hereof if it were an initial PUC Order (in which event the parties shall proceed in accordance with Section 2.2D or Section 2.2E, as the case may be), within twenty-four (24) months after the PUC Submittal Date as a result of an appellate order, the parties shall seek reinstatement of the PUC Approval Order. If such efforts are not successful within twenty-four (24) months from the PUC Submittal Date, HELCO or SELLER may, by written notice delivered within thirty (30) days of the date of such appellate order, declare this Agreement null and void and the parties shall thereafter be free of all obligations hereunder and shall pursue no further remedies against one another, except as provided in Article XI and Section 2.2H hereof. Nothing herein shall be construed to require HELCO to initiate or join in a Motion for Reconsideration or an appeal from a PUC Order issued in response to the parties' efforts to seek reinstatement of the PUC Approval Order, unless HELCO is a required or necessary party to the Motion for Reconsideration or appeal.

(3) If the PUC Approval Order is vacated, reversed or held invalid, void or unlawful in whole or in material part, or is materially modified, as a result of an appellate order (i.e., as a result of an order by a court of competent jurisdiction after appeal, or by the PUC upon remand after appeal) at a date later than twenty-four (24) months from the PUC Submittal Date, and SELLER does not terminate this Agreement pursuant to Section 2.2C, the parties shall jointly seek reinstatement of the PUC Approval Order. If such efforts are not successful within twenty-four (24) months thereafter, this Agreement shall be amended to eliminate any material adverse impact on HELCO of the appellate order, or of the PUC Order issued upon further PUC proceedings, including but not limited to any adverse impact on HELCO's ability to recover the full power purchase costs under this Agreement, and to preserve to the extent possible, the economic and operational arrangements between the parties as set forth in this Agreement.

(4) Pending resolution of the parties' efforts to reinstate the PUC Approval Order, and the issuance of a final PUC Order upon further proceedings, HELCO's obligation to make payments to SELLER under this Agreement shall be limited to the amount of the power purchase costs that HELCO is allowed to recover. If the final PUC Order issued upon further proceedings does not allow for the recovery by HELCO of the full power purchase costs under this Agreement, HELCO's obligation to make payments to SELLER thereafter under this Agreement shall be limited to the amount of the power purchase costs that HELCO is allowed to recover pursuant to such PUC Order. If higher allowed power purchase costs are subsequently authorized by the PUC, HELCO thereafter shall be obligated to pay SELLER such additional amounts for which actual recovery has been approved by the PUC. If HELCO has paid or becomes obligated to pay SELLER any amounts pursuant to this Agreement prior to the date the final PUC Order issued upon further proceedings becomes a Non-appealable PUC Order that HELCO has not been able and/or will not be able to recover through its base rates or Energy Cost Adjustment Clause, and/or if HELCO has recovered such amounts but is or will be required to refund to its customers amounts attributable to this Agreement, SELLER shall repay such amounts to HELCO within thirty (30) days of receipt of HELCO's written demand for repayment.

(5) If the initial PUC Order is subject to Section 2.2D or Section 2.2E, and the Agreement is not terminated pursuant to the provisions of such sections, then the initial PUC Order, or a subsequent PUC Order or PUC Approval Order if the initial PUC Order is amended as a result of a Motion for Reconsideration filed by SELLER or by the parties, shall be deemed to be a PUC Approval Order for purposes of Section 2.2F and 2.2G.

H. Obligations of Parties Upon Termination.

If pursuant to Section 2.2B, 2.2C, 2.2D, 2.2E, or 2.2G, a party exercises its right to terminate, this Agreement shall be terminated and null and void and the parties hereto shall be free of all obligations hereunder, other than as provided under Article XI, except that if SELLER exercises its right to terminate, then SELLER shall reimburse HELCO for its reasonable, documented out-of-pocket costs in seeking PUC Approval as provided in Article XXII.

2.3 Conditions Precedent.

A. HELCO Conditions Precedent.

Subject to and consistent with the provisions of Sections 2.2, 2.3B, 2.4 and 2.5, HELCO's obligation to purchase energy and/or capacity from SELLER pursuant to this Agreement, and any and all obligations of HELCO which are ancillary to that purchase, including, without limitation, HELCO's obligations under Articles IV, V and VI and Sections 3.1, 3.2E, and 3.3A and B, are contingent upon the following:

(1) Following the Execution Date - Within sixty (60) days after the PUC Submittal Date, SELLER shall provide HELCO with either, at SELLER's option, the available design materials listed in "Attachment O" or other evidence reasonably demonstrating that the Facility, if constructed, operated and maintained pursuant to the design materials and in accordance with Good Engineering and Operating Practices, can be reasonably expected to have a useful life at least equal to the Term.

(2) On or Before Closing Date - On or before the Closing Date, SELLER shall provide HELCO with the following:

(i) Copies of the following executed Project Documents, if applicable, in each case redacted to exclude any confidential or proprietary information: (A) the Thermal Energy Sales Contract (if SELLER intends to be a Qualifying Facility by selling useful thermal energy), which contract shall have an initial term of at least two (2) years; (B) the Fuel Supply Agreement; and (C) other contracts (if any) entered into by SELLER for the purchase of critical materials and services necessary for the operation and maintenance of the Facility;

(ii) Copies of any and all then-required insurance policies (or binders as appropriate) procured by SELLER in accordance with Article XIII relating to the construction of the Facility, as the case may be;

(iii) A certificate, executed by a duly authorized officer of SELLER certifying that: (A) SELLER has the right to locate the Facility at the Site for the Term and (B) SELLER has obtained all then-required permits, consents, licenses, approvals and other governmental authorizations needed to commence construction of the Facility.

(3) On or Before Phase 1 In-Service Date - On or before the Phase 1 In-Service Date, SELLER shall provide HELCO with:

(i) Copies of any and all then-required insurance policies (or binders as appropriate) provided by SELLER required pursuant to Article XIII to be in effect prior to operation of the Facility; and

(ii) A certificate, executed by a duly authorized officer of SELLER certifying that: (A) SELLER has obtained all then-required permits, consents, licenses, approvals and other governmental authorizations needed to operate the Facility throughout the

Term or, if one or more such permits, consents, licenses, approvals or authorizations is not available at that time for the full Term, for such lesser period as is available; and (B) construction of Phase 1 of the Facility is substantially complete, that the Facility has been constructed substantially in compliance with the terms of this Agreement and with the information submitted pursuant to Section 2.3A(1) and (2), and that all operational testing has been satisfactorily accomplished and the Facility is ready to begin producing power on a commercial basis under the terms and conditions of this Agreement.

SELLER shall also provide any other materials required by Sections 2.3A(1) and (2) if HELCO has, pursuant to 2.3B(1), extended the date for compliance with the Phase 1 In-Service Date.

(4) On or Before Phase 2 In-Service Date - On or before the Phase 2 In-Service Date, SELLER shall provide HELCO with either, at SELLER's option, a certificate stating or other evidence reasonably demonstrating the items set forth in Section 2.3A(3), as such items relate to Phase 2.

B. Failure of HELCO Conditions Precedent

(1) Right to Declare an Event of Default - If SELLER fails to comply in full with any of the requirements of Section 2.3A and the requirements of this Section 2.3B(1), HELCO may declare such failure an Event of Default under Section 7.1A(3) and exercise its rights under Article VII. In the event that SELLER anticipates that it may fail to meet any of the requirements of Section 2.3A, SELLER shall be given a reasonable additional period to meet such requirements, if SELLER demonstrates that (i) SELLER is reasonably likely to achieve the Phase 1 In-Service Date on or before fifteen (15) months after the Phase 1 In-Service Date Deadline, as extended for Force Majeure, or as otherwise provided herein, and (ii) SELLER is reasonably likely to achieve the Phase 2 In-Service Date on or before fifteen (15) months after the Phase 2 In-Service Deadline, as extended for Force Majeure, or as otherwise provided herein. Upon completing the undertakings set forth in the immediately preceding sentence and not later than thirty (30) days prior to the applicable deadline for meeting any requirement under Section 2.3A (without regard to any extension which may be granted under this Section 2.3B(1)), SELLER shall certify to HELCO, in writing, that HELCO has been provided with all material information necessary for HELCO to make an informed decision with respect to such matters and that such information is true and correct in all material respects and in no way materially misleading. Within thirty (30) days of HELCO's receipt of such certification, HELCO shall give written notice to SELLER in which HELCO either agrees to a new deadline specified in such notice (either by reference to a fixed calendar date or to a defined event) for achieving compliance with the requirement involved or declares an Event of Default in accordance with the first sentence of this Section 2.3B(1). If SELLER fails to comply substantially with the requirements of Section 2.3A by such new deadline, HELCO may immediately declare such failure an Event of Default in accordance with the first sentence of this Section 2.3B(1).

(2) SELLER's Declaration Requirements - Not later than ninety (90) days after the PUC Submittal Date, SELLER shall submit to HELCO a written statement declaring whether SELLER considers that it has complied with Section 2.3A(1) and shall identify with

particularity the submissions on which it relies and shall certify that such submissions are true and correct in all material respects and in no way materially misleading. On or before the Closing Date, SELLER shall submit to HELCO a written statement declaring whether SELLER considers that it has complied with Section 2.3A(2) and shall identify with particularity the submissions on which it relies and shall certify that such submissions are true and correct in all material respects and in no way materially misleading. Not later than fifteen (15) days following the Phase 2 In-Service Date, SELLER shall submit to HELCO a written statement declaring whether SELLER considers that it has complied with Section 2.3A(4) and shall identify with particularity the submissions on which it relies and shall certify that such submissions are true and correct in all material respects and are not materially misleading.

(3) HELCO's Declaration Requirements - HELCO shall be deemed to have waived its right to declare any failure by SELLER to comply in full with the requirements of Sections 2.3A(1), 2.3A(3) or 2.3A(4) to be an Event of Default if (i) with respect to any extension requested by SELLER under Section 2.3B(1), HELCO fails to deliver to SELLER written notice in accordance with Section 2.3B(1) or (ii) with respect to all other requirements under Section 2.3B(1), HELCO fails to declare an Event of Default within 30 days of receiving the written statement required under Section 2.3B(2) relating to Sections 2.3A(1), (3) or (4). Within thirty (30) days of receiving SELLER's written statement pursuant to Section 2.3B(2), HELCO shall provide SELLER with either a written declaration that SELLER has satisfied the requirements of Section 2.3A(2), or a written statement setting forth the requirements HELCO believes have not been met by SELLER. HELCO's failure to provide SELLER with such written declaration or statement within the foregoing thirty (30) day period shall be deemed a waiver of its right to declare an Event of Default with respect to the requirements set forth in Section 2.3A(2). HELCO shall not be deemed to have waived its right to declare an Event of Default if SELLER knew or should have known that any of its submissions or declarations to HELCO under Section 2.3 were materially incomplete, inaccurate or misleading.

2.4 Failure to Meet Milestone Dates

A. Right to Declare Event of Default

(1) Failure to Achieve Milestones - If SELLER fails to achieve any Milestone Event within three (3) months after its Milestone Date as set forth in "Attachment B," as extended for reasons of Force Majeure or as otherwise provided in this Agreement, SELLER shall within thirty (30) days thereafter submit for HELCO's review and approval, which approval shall not be unreasonably withheld, a detailed plan which describes (i) the reasons why such Milestone Event was not achieved, (ii) SELLER's proposed measures for achieving such Milestone Event as soon as practicable thereafter, and (iii) SELLER's proposed measures for meeting the Phase 1 In-Service Date and Phase 2 In-Service Date by not more than six (6) months after the Phase 1 In-Service Date Deadline and Phase 2 In-Service Date Deadline, respectively. Until such Milestone Event is met, SELLER shall provide HELCO with monthly progress reports as to the status of SELLER's efforts to achieve such Milestone Event.

If SELLER thereafter fails to achieve any Milestone Event within nine (9) months after its Milestone Date as set forth in "Attachment B," as extended for reasons of Force Majeure or as otherwise provided in this Agreement, and if HELCO reasonably determines that such failure makes it unlikely that the Facility will achieve the Phase 1 In-Service Date by fifteen (15) months after the Phase 1 In-Service Date Deadline or the Phase 2 In-Service Date by fifteen (15) months after the Phase 2 In-Service Date Deadline, HELCO may, at any time after nine (9) months after such Milestone Date, declare such failure to achieve a Milestone Date an Event of Default and exercise its rights provided for in Article VII; provided that, if HELCO does not exercise such right to declare an Event of Default within fifteen (15) months after such Milestone Date, it shall be deemed to have waived its rights to declare an Event of Default in connection with such failure.

(2) **Dispute Over HELCO's Determination** - If SELLER disputes HELCO's determination that SELLER has failed to achieve any task within the required time period or disputes the reasonableness of HELCO's determination that the Facility is unlikely to achieve the Phase 1 In-Service Date or Phase 2 In-Service Date, as the case may be, within the stated periods provided in Section 2.4A(1), SELLER may call for expedited arbitration of the issue in accordance with Section 2.4C, and any related declaration of an Event of Default by HELCO shall be stayed until such arbitration is concluded. If the arbitrator finds that SELLER has not failed to achieve such task within such time period or the arbitrator rejects HELCO's determination as unreasonable, then any HELCO declaration of an Event of Default hereunder shall be null and void.

B. Late Charges

In the event the Facility has not achieved either In-Service Date Deadline by three (3) months after such In-Service Date Deadline, as extended for reasons of Force Majeure or as otherwise provided in this Agreement, SELLER shall pay to HELCO Late Charges as follows:

(1) if either or both In-Service Date Deadlines are missed, the total amount of \$10,000 per day, commencing on the day following such three (3) month period, until the earlier of: (X) the date on which the Facility achieves the Phase 1 In-Service Date or Phase 2 In-Service Date, as the case may be, associated with such missed In-Service Date Deadline; (Y) the date nine (9) months after the Phase 2 In-Service Deadline; or (Z) the date on which HELCO terminates this Agreement under Section 7.2; and

(2) if either or both of the In-Service Date Deadlines are missed, the total amount of \$20,000 per day commencing on the date which is nine (9) months after the Phase 2 In-Service Deadline, until the earlier of (X) the date on which the Facility achieves the Phase 1 In-Service Date or the Phase 2 In-Service Date, as the case may be, associated with such missed In-Service Date Deadline, or (Y) the date on which HELCO terminates this Agreement under Section 7.2;

Notwithstanding anything to the contrary in this Section 2.4B, if HELCO does not exercise its termination right under Section 7.2 by the end of the fifteenth (15th) month after the missed In-

Service Date Deadline (or if both In-Service Date Deadlines are missed, the fifteenth (15th) month after the first missed In-Service Date Deadline), the aforesaid Late Charges shall thereupon terminate unless prior to the end of that period HELCO provides written notice to SELLER that it will refrain from exercising its termination right under Section 7.2 for a further stated period of time (not to exceed six (6) months without SELLER's written consent) to be fixed by HELCO in said notice, based on HELCO's reasonable estimate of the time required to achieve the Phase 1 In-Service Date and/or Phase 2 In-Service Date, as applicable, in which case the aforesaid Late Charges shall continue during the stated period of time thus fixed by HELCO. Late Charges shall be made in immediately available funds on Monday of each week for amounts due with respect to the previous seven (7) days except in the event of termination of this Agreement in accordance with Section 7.2, in which event Section 7.2D shall apply; provided, however, that in the event SELLER does not make any or all of such payments to HELCO on or before the due date for the initial Capacity Charge payment under Section 5.1B, HELCO shall have the right to offset any unpaid portion of such Late Charge against such initial Capacity Charge payment and, if necessary, against each succeeding Capacity Charge payment until such Late Charge is paid in full. Unless HELCO declares an Event of Default and terminates this Agreement for SELLER's failure to meet the Phase 1 In-Service Date and/or Phase 2 In-Service Date in accordance with Section 7.1A(1), then, so long as HELCO accepts delay of the Phase 1 In-Service Date and/or Phase 2 In-Service Date, the payment of Late Charges as provided herein shall be HELCO's sole and exclusive remedy and SELLER's sole liability for damages for SELLER's delay in achieving the Phase 1 In-Service Date and/or Phase 2 In-Service Date.

C. Arbitration

(1) Time of the Essence

The parties agree that time is of the essence in resolving any dispute regarding the declaration of an Event of Default by HELCO pursuant to Section 2.4A. Accordingly, arbitration pursuant to this Section 2.4C shall be the exclusive mechanism for resolving any such dispute, and the timetable set out in this Section 2.4C shall be adhered to strictly.

(2) Designation of Arbitrator

If SELLER disputes the declaration of an Event of Default by HELCO pursuant to Section 2.4A, SELLER shall give written notice to HELCO of such dispute within seven (7) days after receipt of said declaration of an Event of Default. Upon such written notice by SELLER, a single Qualified Independent Engineer shall be designated as a single arbitrator to consider and resolve such dispute as provided for herein. The selection of such single arbitrator shall be made from the list established in Section 3.3D(2) and the provisions of Article XIV shall not apply to the selection of such arbitrator or to the conduct of such arbitration. If HELCO and SELLER do not agree upon the arbitrator to be employed within seven (7) days after SELLER's notice of dispute, SELLER shall designate the arbitrator from the list provided for under Section 3.3D(2) not later than the seventh (7th) day following receipt by HELCO of SELLER's notice of dispute.

(3) Timing of Arbitrator's Decision

The arbitrator shall complete all proceedings and issue his decision with regard to the declaration of an Event of Default under Section 2.4A within thirty (30) days of the date on which he is designated unless the arbitrator determines that additional time is required in order to give adequate consideration to the matter. In such case the arbitrator shall state in writing his reasons for believing that additional time is needed and shall specify the additional period required. Such additional period shall not in any event exceed thirty (30) days.

(4) Standard to be Applied

After hearing the parties' positions, the arbitrator shall determine whether HELCO has exercised reasonable judgment in determining that SELLER's failure to achieve a Milestone Event by the Milestone Date has made it unlikely that the Facility will achieve the Phase 1 In-Service Date or Phase 2 In-Service Date, as the case may be, by the periods set forth in Section 2.4A(1).

(5) Effect of Arbitrator's Decisions

Unless the parties otherwise agree, the arbitrator's decision shall become binding upon the parties at such time as the decision is confirmed by order of a court of competent jurisdiction pursuant to Chapter 658, Hawaii Revised Statutes.

(6) Cost of Arbitration

The parties shall each pay fifty (50) percent of the cost of the arbitration.

2.5 No Waiver

Except as otherwise provided herein, failure by HELCO to invoke its rights under Sections 2.3 or 2.4A with respect to any particular Condition Precedent or Milestone Event shall in no way diminish HELCO's rights upon the failure of SELLER to achieve any subsequent Condition Precedent or Milestone Event prior to its applicable Milestone Date. Notwithstanding any other provision hereof, HELCO's failure to declare an Event of Default during the time periods provided for in this Agreement shall not constitute a waiver if such failure is the direct or indirect result of SELLER's misstatement of a material fact or SELLER's omission of a material fact which is necessary to make any representation, warranty, certification, guarantee or statement made (or notice delivered) by SELLER to HELCO in connection with this Agreement (whether in writing or otherwise) not misleading.

2.6 Term

Subject to issuance of the PUC Order referred to in Section 23.14 and the provisions of Sections 2.2A and 2.3A, the Term of this Agreement shall commence upon the Execution Date and, unless extended pursuant to Section 2.6A below or for periods of Force Majeure occurring

after the Phase 2 In-Service Date, or as otherwise provided in this Agreement, this Agreement shall terminate on the 30th anniversary of the Phase 2 In-Service Date of the Facility.

A. Extension of Term

HELCO shall have the first opportunity to negotiate with SELLER to purchase the capacity and/or Net Electric Energy Output of the Facility for periods beyond the Term. At the request of HELCO, SELLER shall enter into such good faith negotiations at any time after the beginning of the fifth (5th) calendar year prior to the end of the Term, shall attempt in good faith to reach agreement with HELCO, and shall not negotiate with any other entity unless no agreement has been reached between HELCO and SELLER as of thirty-six (36) months prior to the end of the Term. Unless otherwise specifically stated in writing by HELCO, any negotiations commenced within such five (5) year period shall be considered terminated as of the end of the Term.

B. Post Term

Upon expiration of the Term and any extensions thereof, the parties hereto shall no longer be bound by the terms and conditions of this Agreement, except to the extent necessary to enforce the rights and obligations of the parties arising under this Agreement before the end of the Term. However, should the original Term end with the parties hereto actively negotiating for the purchase of the Facility pursuant to Article XIX or the capacity and/or Net Electric Energy Output of the Facility, then such Term shall be automatically extended on a month-to-month basis under the same terms and conditions as contained in this Agreement for so long as said negotiations continue in good faith. The month-to-month Term extensions shall end sixty (60) days after either party notifies the other in writing that said negotiations have terminated.

2.7 SELLER Financing

Notwithstanding any other provisions in this Agreement, if within eight (8) months from the Execution Date, SELLER has been unable, despite its reasonable best efforts, to obtain a firm commitment (subject to customary conditions including, without limitation, receipt of all required permits and approvals) by a prospective lender or underwriter for construction and term non-recourse project financing for the Facility on commercially reasonable terms and conditions, taking into account the Facility's size, fuel type, technology, geographic location and intended use of tax-exempt financing, then SELLER, at its option, may terminate this Agreement without any liability or further obligation on the part of either party under this Agreement, except as provided in Articles XI and XXII and Section 2.2H; provided however, that HELCO shall have the option, upon the request of SELLER, to participate in good faith negotiations with potential financing parties for a period of not less than thirty (30) days to modify any terms of this Agreement as needed to acquire financing on satisfactory terms and conditions; provided further, that (A) during such negotiations the Milestone Dates and the In-Service Date Deadlines shall be extended on a day-to-day basis; and (B) any such termination under the terms of this Section 2.7 must occur, if at all, within the later of (i) nine (9) months after the Execution Date; (ii) forty-five (45) days after the PUC Order Date; (iii) sixty (60) days after the PUC Order Date if the PUC Order amends any material provision of this Agreement; or (iv) the earlier of sixty (60) days after

the date of filing of any Motion for Reconsideration of, or appeal from, the PUC Order, or ten (10) days after the date such Motion for Reconsideration or appeal is resolved. SELLER shall reimburse HELCO for any out-of-pocket costs incurred in connection with HELCO's participation in good faith negotiations with potential financing parties pursuant to this Section 2.7.

ARTICLE III - SPECIFIC RIGHTS AND OBLIGATIONS OF THE PARTIES

3.1 Rights and Obligations of Both Parties

A. Sale and Purchase of Power

SELLER shall produce, supply and sell to HELCO and HELCO shall take from SELLER and pay for the Firm Capacity and Net Electrical Energy Output as determined hereunder under the terms and conditions established in this Agreement.

B. Protection of Facilities

Each party shall be responsible for protecting its own facilities from possible damage by reason of electrical disturbances or faults caused by the operation, faulty operation or non-operation of the other party's facilities, and such other party shall not be liable for any such damage so caused.

C. Good Engineering and Operating Practices

HELCO and SELLER and all their employees, agents, assigns and contractors shall act in accordance with Good Engineering and Operating Practices in carrying out all actions under this Agreement.

D. Interconnection Facilities

Simultaneously herewith, SELLER and HELCO have entered into the Interconnection Agreement.

E. Security Documents

Concurrent with the Closing Date, SELLER and HELCO shall comply with the following requirements:

(1) SELLER shall execute and deliver to HELCO the Security Agreement and the Mortgage, which shall contain terms and conditions reasonably satisfactory to the Financing Parties and HELCO, to secure the performance by SELLER of its payment obligations under this Agreement; provided, that HELCO shall concurrently execute and deliver to Financing Parties and SELLER a subordination agreement (the "Subordination Agreement") which shall contain terms and conditions generally required by lenders of long-term, non-recourse project loans and

provided further, that such terms and conditions shall be reasonably satisfactory to Financing Parties and HELCO, which shall use best efforts to complete such documentation within sixty (60) days of the commencement of negotiations. The Subordination Agreement shall subordinate, in all respects, the Security Agreement and the Mortgage to the mortgage and security interest provided to the Financing Parties in an amount and to the extent that such security interest and mortgage secure such credit extended by the Financing Parties to SELLER as shall be required for the development, construction and operation of the Facility.

(2) SELLER and HELCO shall each execute and deliver to the other or shall cause to be executed and delivered to the other any required consents.

(3) SELLER shall request the original Financing Parties and any additional or substitute Financing Parties to become parties to such documentation as is reasonably necessary to give effect to this Section 3.1E.

(4) SELLER and HELCO shall each execute and deliver to the other favorable legal opinions of counsel, in reasonably satisfactory form and substance, to the effect that this Agreement has been duly authorized and executed by that party and constitutes a legally enforceable obligation binding against that party in accordance with its terms, subject to customary exceptions.

(5) SELLER and HELCO shall each execute and deliver to the other such other documents and instruments, and take such other actions as may be reasonably necessary (A) for HELCO to establish and perfect its rights under the Security Documents and to obtain and give full effect to the security interest, mortgage and priority contemplated hereby and (B) for SELLER to carry out the transactions contemplated by the Financing Documents, as reasonably requested by the Financing Parties.

3.2 Rights and Obligations of SELLER

A. Design and Construction of Facility

(1) General - SELLER shall furnish all financial resources, labor, tools, materials, equipment, transportation, supervision, and other goods and services necessary to completely design and build the Facility as more particularly described in Section 2.1B. SELLER shall also be responsible for acquiring any and all necessary land rights for the Facility as well as for fuel handling and waste disposal infrastructures. The design and construction of the Facility as well as the acquisition of other necessary infrastructures shall take place using Good Engineering and Operating Practices.

(2) Milestone Dates - Due to the critical nature of HELCO's energy needs, the attainment of all Milestone Events, on or prior to applicable Milestone Dates established as of the date of this Agreement and specified in "Attachment B," as extended due to Force Majeure or as otherwise provided, is essential, and SELLER will make all reasonable efforts to meet the Milestone Dates. Unless a change in such dates is agreed to in writing between the parties, a

failure to achieve a Milestone Event within three (3) months after its Milestone Date shall be treated in accordance with the provisions of Section 2.4 and Article VII, if applicable to such condition.

(3) In-Service Date Deadlines - The Phase 1 In-Service Date shall occur no later than fourteen (14) months after the Execution Date or eight (8) months after the PUC Approval Date, whichever is later (the "Phase 1 In-Service Date Deadline") and the Phase 2 In-Service Date shall occur no later than eighteen (18) months after the Execution Date or twelve (12) months after the PUC Approval Date, whichever is later (the "Phase 2 In-Service Date Deadline") unless extended as a result of Force Majeure or as otherwise provided in this Agreement. A failure to achieve the Phase 1 In-Service Date or Phase 2 In-Service Date by the dates specified in Section 7.1A(1) shall be treated in accordance with the provisions of Section 2.4 and Article VII, if applicable to such failure.

(4) Permits and Licenses - SELLER shall assume full responsibility for the acquisition of all permits and licenses required for the construction and operation of the Facility; provided that, HELCO shall cooperate with and shall not oppose SELLER's efforts in connection therewith. Notwithstanding anything to the contrary, if SELLER does not obtain all permits necessary for construction of the Facility within eight (8) months of the PUC Approval Date, SELLER shall have the right to terminate this Agreement within thirty (30) days thereafter, effective upon written notice to HELCO, and SELLER shall thereafter have no further liability or obligations to HELCO, except as provided in Articles XI and XXII; provided, that such right to terminate must be exercised no later than twenty-four (24) months after the PUC Submittal Date.

(5) Review of Facilities - SELLER shall make readily available to HELCO, during normal business hours, non-proprietary, detailed engineering and as-built drawings relating to the design and construction of the Facility within a reasonable time after such drawings are available. HELCO shall have an opportunity, from time to time, as reasonably requested by HELCO, to (a) review and comment on the design of the Facility, (b) to observe the construction of the Facility and the equipment to be installed therein and (c) to inspect the Facility and related equipment following the completion of construction and/or installation of Phase 1 and Phase 2; provided that, such activities do not materially interfere with SELLER's construction or operation of the Facility. Unless otherwise agreed to by the parties, HELCO shall, as soon as practicable, but in no event later than thirty (30) days following provision to it of (i) any design materials or (ii) any opportunity for inspection by it of the construction of the Facility, review and provide comments thereon, and SELLER shall, as soon as practicable, but in no event later than thirty (30) days after receipt of such comments, respond in writing, either noting agreement and action to be taken or reasons for disagreement. If SELLER disagrees with HELCO, it shall note alternatives it will take to accomplish the same intent, or provide HELCO with a reasonable explanation as to why no action is required by Good Engineering and Operating Practices. In no event shall any review, comment or failure to comment by HELCO be deemed to be an endorsement, warranty or waiver of any right by HELCO or create any obligation by SELLER; provided, however, that HELCO shall be deemed to have waived its right to review, comment and inspect under this Section 3.2A(5) with respect to any specific design materials or inspection opportunity provided to it if it fails to exercise such specific rights

within the thirty (30) day period referred to in this Section 3.2A(5) and such subsequent untimely exercise of such specific rights would delay construction of the Facility or cause material prejudice to SELLER. In no event, however, shall any failure by HELCO to exercise its rights under this Section 3.2A(5) constitute a waiver by HELCO of, or otherwise release SELLER from, any other provision of this Agreement. In areas of common concern, such as the type and settings of SELLER's protective relaying equipment, SELLER shall submit such concerns, designs and settings for HELCO's review and comment.

(6) Facility Protection Equipment -

(i) SELLER shall, at its own cost, furnish, install, operate and maintain internal breakers, relays, switches, synchronizing equipment and other associated protective and control equipment necessary to maintain the standard of reliability, quality and safety of electricity production suitable for parallel operation with HELCO's electrical system as required by Good Engineering and Operating Practices. The Facility shall be designed so that it does not trip for an electrical fault or transient condition in HELCO's electrical system that will be cleared by primary protection. HELCO shall have the right, but not the obligation, to review and accept the design of all such equipment and protective relay settings as soon as practicable, and in no event later than forty-five (45) days prior to the Closing Date and shall present any comments relating thereto to SELLER, as soon as practicable and in no event later than sixty (60) days after receiving such design information. HELCO shall have the right, but not the obligation, to review, inspect and comment on any future action by SELLER to modify or replace such equipment, or change such settings, as soon as practicable, and in no event later than least forty-five (45) days prior to such future action; provided, however, HELCO shall present any comments relating thereto to SELLER as soon as practicable, and in no event later than forty-five (45) days after receiving information relating to such future action. HELCO shall have the right, but not the obligation, to review, inspect and accept the installation, construction and setting of all such equipment in order to ensure consistency with the design submitted by SELLER for HELCO's review. If HELCO exercises such right, HELCO shall inform SELLER as soon as practicable, and in no event later than forty-five (45) days after such review or inspection, of any problems it believes exist and any recommendations it has for correcting such problems. HELCO's inspection and acceptance of SELLER's equipment and settings shall not be construed as endorsing the design thereof, nor as any warranty of the safety, durability or reliability of said equipment and settings, nor as a waiver of any of HELCO's rights or constitute any obligation of SELLER; provided, however, that HELCO shall be deemed to have waived its right to review, inspect and accept under this Section 3.2A(6)(i), with respect to any specific design materials, settings, or inspection opportunity provided to it, if it fails to exercise such specific rights within the forty-five (45) day periods referred to in this Section 3.2A(6)(i). In no event, however, shall any failure by HELCO to exercise its rights under this Section 3.2A(6)(i) constitute a waiver by HELCO of, or otherwise release SELLER from, any other provision of this Agreement. SELLER and HELCO shall cooperate with each other in good faith in agreeing upon design standards for any equipment or settings referred to in this Section 3.2A(6)(i).

(ii) Within a reasonable time after receipt of HELCO's comments referred to in Section 3.2A(6)(i) or notification by HELCO of problems related to SELLER's

obligations under Section 3.2A(6)(i) but no later than ninety (90) days after such notification 'unless such condition is causing a safety hazard or damage to HELCO's electrical system or HELCO's customer's facilities, in which event the correction must be promptly made by SELLER). SELLER shall either implement HELCO's proposals or SELLER's alternatives to accomplish the same purpose, and shall inform HELCO of such action, or provide HELCO with a reasonable explanation as to why such actions are not required by Good Engineering and Operating Practices. Notwithstanding the foregoing, SELLER shall utilize relay settings prescribed by HELCO, which may be changed over time within the design capability of the equipment as HELCO's electrical system's requirements change. If SELLER demonstrates that the utilization of such relay settings would likely result or shall have resulted in an event normally requiring Liquidated Damages or an Event of Default, SELLER shall be excused from same.

(7) Progress Reports - On the first day of each month following approval of this Agreement by the PUC under Section 23.14 and continuing until the Phase 2 In-Service Date, SELLER shall provide HELCO with monthly progress reports containing a reasonable level of detail on the status of each specific Condition Precedent contained in Section 2.3A and the status of efforts to meet each Milestone Date. If, during any month, SELLER has reasonable cause to believe that it will be unable to achieve any Milestone Date, it shall so inform HELCO in the next monthly progress report. At HELCO's request, SELLER shall provide an opportunity for HELCO to meet with appropriate personnel of SELLER or its contractors to discuss and assess any such monthly progress report.

B. Operation and Maintenance of Facility

(1) Standards - SELLER shall operate the Facility in accordance with Good Engineering and Operating Practices. Subject to those standards, SELLER shall deliver to HELCO the available Net Electric Energy Output of the Facility under HELCO Dispatch and shall use all reasonable efforts to operate the Facility in a manner that maximizes the overall reliability of HELCO's electrical system. The Facility shall not trip for an electrical fault or transient condition in HELCO's electrical system of less than 18 cycles duration, or a resulting trip shall be considered a Unit Trip which shall count towards the number of allowable Unit Trips under Section 3.2D(5).

While a generator is on Reserve Shutdown, SELLER may not perform any maintenance, inspections or repairs that could delay start-up of that generator or impair that generator's ability to reach maximum electrical output, if so directed by HELCO's System Operator. Section 3.2C specifies performance criteria for the start-up of a generator(s) in Simple Cycle and combined-cycle mode from Reserve Shutdown status. SELLER shall seek permission from HELCO's System Operator before SELLER voluntarily removes a generator from Reserve Shutdown status; if such change in generator status by SELLER is involuntary, SELLER shall promptly advise HELCO's System Operator. Failure by SELLER to promptly advise HELCO's System Operator of such a change from Reserve Shutdown status shall be considered an unreported derating per Section 8.1C. HELCO may request SELLER to certify that the activities of SELLER during Reserve Shutdown conform to the definition of Reserve Shutdown.

(2) Functioning Protective Equipment - SELLER shall operate the Facility with all applicable installed system protective equipment in service whenever the generator is connected to or is operated in parallel with HELCO's electrical system, except for normal testing purposes in accordance with Good Engineering and Operating Practices. SELLER shall have qualified personnel test and calibrate all protective equipment at regular intervals not to exceed one (1) calendar year. A unit functional trip test (which shall include an overspeed trip test on the steam turbine) shall be performed annually in accordance with industry standards. Following a Major Equipment Overhaul, a functional trip test shall be performed and shall simulate abnormal trip conditions separately at each primary element that initiates a trip and shall demonstrate that the trip system produces the appropriate equipment response. In no event shall any trip test conducted pursuant to this Section 3.2B(2) constitute a Unit Trip. If at any time HELCO has reason to doubt the integrity of the Facility's protective equipment and reasonably suspects that such purported loss of integrity would jeopardize the reliability of HELCO's supply of electrical energy to its customers, SELLER shall be required to reasonably demonstrate to HELCO's satisfaction the correct calibration and operation of the equipment in question. HELCO shall not be liable for any damage to SELLER's equipment resulting from the failure of Facility protective equipment.

(3) Personnel and System Safety - SELLER shall provide, at a location approved by HELCO, a manual disconnect device which provides a visible break to electrically separate the Facility from HELCO's electrical system. Such disconnect device shall be lockable in the OPEN position and accessible to HELCO personnel at all times. Notwithstanding any other provision of this Agreement, if at any time HELCO determines that the continued operation of the Facility (i) is substantially likely to endanger the safety of persons and/or property, (ii) is substantially likely to endanger the integrity of HELCO's electrical system or (iii) is substantially likely to have an adverse effect on the equipment of HELCO's customers and can be reasonably demonstrated to have such adverse effect, then in each case (i) through (iii), HELCO shall have the right to disconnect the Facility from HELCO's electrical system, giving as much advance notice to SELLER as is practicable under the given circumstances. If the Facility is separated from HELCO's electrical system for any reason, under no circumstances shall SELLER reclose into HELCO's electrical system without first obtaining specific approval to do so from HELCO's System Operator which approval shall be granted promptly upon the removal of the cause stated in sub-clauses (i) through (iii) above. The Facility shall remain disconnected until such time that the condition specified under (i), (ii) or (iii) above has been corrected, and HELCO shall not be obligated to accept or pay for any energy which might otherwise have been received from the Facility during such Period. If HELCO disconnects the Facility from HELCO's electrical system, it shall immediately notify SELLER by telephone or hotline and thereafter confirm in writing the reasons for the disconnection. The claim of occurrence of any event as described in this Section 3.2B(3) shall be subject to verification by SELLER. SELLER shall be paid the Capacity Charge regardless of the causes of disconnection. If it is determined that HELCO did not have a valid reason for disconnecting the Facility, the duration of the period of separation will not be counted against EAF or EFOR or for the purpose of calculating any other performance standard.

(4) Operating Records - SELLER shall maintain, at least daily, a log in which it shall record all pertinent data that will indicate whether the Facility is being operated in accordance with Good Engineering and Operating Practices. These data shall include, but not be limited to, all maintenance and inspection work performed at the Facility, circuit breaker trip operations, relay operations including target indications, megavar and megawatt recording charts (and/or equivalent computer records), all unusual conditions experienced or observed and any reduced capability and the reasons therefor and duration thereof. SELLER shall provide HELCO access to SELLER's records which identify the priority, as internally assigned by SELLER, of specific preventive or corrective maintenance activities. These records shall include items for which SELLER has deferred the inspection or corrective action to a future scheduled plant outage. In addition, SELLER shall provide copies of all written correspondence between SELLER and the Financing Parties or SELLER and the insurance underwriters for the Facility equipment pertaining to maintenance practices, procedures and scheduling (including deferral) of maintenance at the Facility. In addition, SELLER shall, within ten (10) Business Days, provide HELCO with subsequent written confirmation any time SELLER experiences a Unit Trip or other unplanned outages or deratings. Such written confirmation shall contain information in sufficient detail for HELCO to analyze the incident, including the date and time of occurrence as well as the cause of the Unit Trip, if such cause is known. "Attachment M" is an example of a written confirmation. HELCO shall have the right to request reasonable additional information if necessary to evaluate the incident. In addition, if so requested by HELCO, SELLER shall by 9:00 a.m. Hawaii Standard Time of each day provide HELCO with hourly, electric output data for the prior day. Correction of any errors in this data shall be provided to HELCO by noon Hawaii Standard Time of the following day. Any and all records, correspondence, memoranda and other documents or electronically recorded data related to the fueling, operation and maintenance of the Facility shall be maintained by SELLER for a period of not less than six (6) years. HELCO shall have the right to review and copy any such items upon request.

(5) Maintenance Records - Prior to February 1 of each year, SELLER shall submit, or make available to HELCO for inspection at the Site, a summary in a format similar to the example provided in "Attachment G" of all maintenance and inspection work performed in the prior calendar year. The summary shall present the requested data in a meaningful and informative manner consistent with the cooperative exchange of information between the parties. If available and practicable, such summary shall be provided in electronic format with sufficient software so that HELCO can group activities for specific process areas of the Facility and be able to view the maintenance history of a specific equipment item. Such summary shall also include SELLER's proposals for correcting or preventing recurrences of identified equipment problems and for performing such other maintenance and inspection work as is required by Good Engineering and Operating Practices. Within sixty (60) days of receiving such summary, and after any reasonable inspection desired by HELCO of the Facility and consultation with SELLER, HELCO may provide written recommendations for specific operation or maintenance actions or for changes in the operation or maintenance program of the Facility. HELCO's making or failing to make recommendations with respect to operation and maintenance of the Facility shall not be construed as endorsing the operation and maintenance thereof or as any warranty of the safety, durability or reliability of the Facility nor as a waiver of any HELCO right. Within a reasonable time after HELCO makes such recommendations, not to exceed

ninety (90) days, SELLER shall implement HELCO's recommendations or SELLER's alternatives to accomplish the same purpose, and shall so inform HELCO, or explain to HELCO in writing why such actions are not reasonably required to ensure that the short-term and long-term operation of the Facility are not materially adversely affected or impaired, or why such actions are not required by Good Engineering and Operating Practices.

(6) Major Outages - If SELLER believes that a major outage is required to prevent a Catastrophic Equipment Failure, SELLER shall notify HELCO as soon as practicable and HELCO shall promptly act, upon SELLER's request, to approve such outage, which approval shall not be unreasonably withheld, delayed or conditioned. If an outage under this Section 3.2B(6) does not occur until after the next weekend period, it shall be considered a maintenance outage and shall not count against SELLER for purposes of determining EFOR.

C. Delivery of Power to HELCO; Dispatch Constraints

(1) Delivery Voltage Standards - Electricity generated by SELLER shall be delivered to HELCO at the Point of Interconnection in the form of 3-phase, 60 Hertz alternating current at a nominal operating voltage of 69 KV with a maximum limit of 72.45 KV and a minimum limit of 65.55 KV or such change in standards as the parties mutually agree. The actual operating voltage will be under the control of HELCO's System Operator, subject to the above limits.

(2) Frequency Standards - The electrical frequency of electric energy delivered to HELCO by SELLER shall not vary by more than one-tenth (0.1) Hertz from 60.00 Hertz, except during unavoidable momentary fluctuations. Frequency will normally be controlled by HELCO's EMS. HELCO shall have the right to utilize the Facility to regulate frequency on HELCO's electrical system consistent with this Section 3.2C.

(3) Reactive kVAR Standards - HELCO's System Operator shall specify the reactive kVAR requirements (power factor) with respect to the real power delivered by SELLER to HELCO. Reactive kVAR requirements will be from 0.98 leading to 0.85 lagging power factor delivered by SELLER to HELCO. SELLER will dispatch kVARs within this range as specified by HELCO's System Operator. HELCO will not be obligated to purchase reactive kVARhs from SELLER. SELLER will deliver or curtail delivery of reactive kVARhs as directed by HELCO's System Operator consistent with Section 3.2 and the Dispatch Constraints. Under special conditions when SELLER is delivering kilowatts to HELCO, SELLER shall, if HELCO so requests, consume reactive kVARs up to 0.98 leading power factor being delivered by SELLER to HELCO.

(4) Generator H Constant - In recognition of HELCO's electrical system's stability concerns, the Facility generator shall have an H constant of 1.2 or higher. A lower value of H constant may be accepted by HELCO if supported by a system stability study performed by HELCO and paid for by SELLER. In any case, SELLER must obtain HELCO's written approval, which approval shall not be unreasonably withheld, of the H constant in the installed equipment.

(5) Entire Output Delivered - During the Term, SELLER shall deliver to HELCO in accordance with HELCO Dispatch the entire Net Electric Energy Output associated with the Firm Capacity.

(6) Interconnection - SELLER shall deliver the electricity contracted for under this Agreement to HELCO's electrical system at the Point of Interconnection.

(7) Operation of Synchronizing Breakers - SELLER shall have the ability to trip and close its generator synchronizing breakers located at the Facility. HELCO will have trip control only and breaker status indication and current telemetry over certain breakers, as shown in "Attachment A." SELLER shall notify HELCO of all operations of these breakers, in advance of such operation if practicable.

(8) Schedule of Outages - Prior to July 1 of each year, SELLER shall submit for review and comment by HELCO an initial schedule of expected energy delivery periods for the sixty (60) month period beginning with January of the following year (the "60-Month Schedule"). The 60-Month Schedule shall supersede any previous 60-Month Schedule and state the periods of operation, the dates and duration of all scheduled shutdowns, reductions of output, and scheduled maintenance, and the reasons therefor, including the scope of work for the maintenance requiring shutdown or reduction in output of the Facility. SELLER shall (i) revise such 60-Month Schedule to accommodate reasonable requests made by HELCO no later than December 1 of the year preceding the year in which a scheduled revision is requested to take place; provided that, if the requested revision is one of timing, the revised date(s) shall be within the same calendar year as scheduled, so long as such revised schedule is consistent with Good Engineering and Operating Practices and does not, or is not reasonably likely to, have a material adverse effect on the performance of the Facility; and (ii) use its reasonable best efforts, consistent with Good Engineering and Operating Practices, to accommodate any subsequent changes in such 60-Month Schedule (either delaying or advancing such 60-Month Schedule) reasonably requested by HELCO in the event that HELCO is experiencing or expecting to experience a short-term shortage of supply of energy, capacity or both or any other operational or electrical problems with HELCO's electrical system, in which case HELCO shall reimburse SELLER for any net incremental costs of changing the 60-Month Schedule to accommodate HELCO; provided that SELLER provides written documentation of such net incremental cost and makes a reasonable effort to include potential savings (for example, an improved heat rate) attributable to the change in schedule.

The normal annual maintenance requirements for the Facility are the equivalent of two (2) weeks of full plant sixty (60) MW outage. Notwithstanding the foregoing, SELLER shall not take units down for maintenance such that the capability of the Facility falls below thirty (30) MW at any given time, except with HELCO's prior approval, which shall not be unreasonably withheld.

SELLER shall not schedule any maintenance not listed on the 60-Month Schedule that will reduce or eliminate electric output of the Facility without coordination with

and approval of HELCO, which approval shall not be unreasonably withheld, delayed or conditioned, and shall use all reasonable efforts to provide HELCO with as much advance notice as is practicable prior to removing the Facility from service for such maintenance. Such removal from service will be treated as a forced outage if so required under NERC GADS.

(9) Minimum Load Capability - Subject to the Dispatch Constraints, when on-line, the Facility shall provide the following net minimum load capability: one (1) CT, Simple Cycle mode - five (5) MW; one (1) CT, combined cycle mode - seven (7) MW; two (2) CTs, Simple Cycle mode - ten (10) MW; two (2) CTs, combined cycle mode - sixteen (16) MW.

(10) Short Circuit Ratio - The short circuit ratio shall be between 0.4 and 1.0 inclusive.

(11) Open Circuit Transient Field Time Constant - The open circuit transient field time constant shall be thirteen (13) seconds or less.

(12) Generator Step-Up Transformer Impedance - The generator step-up transformer impedance shall be between seven percent (7%) and nine percent (9%), inclusive, on transformer OA rating.

(13) Response Ratio - The excitation system response ratio shall be 1.0 or higher.

(14) Ceiling Voltage - The excitation system ceiling voltage shall be one hundred fifty percent (150%) of rated main generator field voltage.

(15) Excitation Source Immunity - The excitation source shall be immune to variations in system voltage.

(16) Static Regulator - The excitation system shall have a static regulator.

(17) Field Forcing Ability - The excitation system shall have field forcing ability.

(18) Droop Characteristic - The unit speed-droop characteristic shall have a nominal setting of five percent (5%) and variable settings between three percent (3%) and six (6%).

(19) Over/Under-Speed - The over-speed/under-speed operating capability shall be +/- 1.5 Hz continuously and +/- 3 Hz for a minimum of six (6) seconds per occurrence.

(20) Control Systems - The power source for control systems will be designed to be immune from system transients in accordance with Section 3.2A(6).

(21) Regulation Capability - The Facility shall be capable of operating in isochronous or droop mode.

(22) Capacity Tests - SELLER shall conduct Initial Acceptance Tests for Phase 1 and Phase 2 and any subsequent Capacity Tests (subject to inspection by HELCO) in accordance with the testing procedures set forth in "Attachment L," to determine when Capacity Charge payments should begin or be adjusted in accordance with Section 5.1B.

(23) Cycling of the Heat Recovery Steam Generators and the Steam Turbine - Within the limitations (if any) set forth in the PSD Permit regarding limits on starts or restarts, the generating units may be shut down and restarted as requested by HELCO pursuant to HELCO Dispatch: provided that, under normal (non-emergency) system conditions, neither heat recovery steam generator shall be shut down and restarted more than an average of once per day during any Calendar Month and provided, further, that the parties shall cooperate and use good faith efforts in seeking to remove such limitations (if any) set forth in the PSD Permits regarding starts or restarts. If a heat recovery steam generator is taken off-line and put back on-line within five (5) hours, such process shall not be deemed a "restart" for purposes of this Section 3.2C(23). If (to the extent permitted under the PSD Permit) HELCO shuts down and restarts either heat recovery steam generator more than thirty (30) times during any Calendar Month, HELCO shall pay to SELLER Five Hundred Dollars (\$500) (1995 \$) (as escalated by the factor of $\text{GDPIPD}_{\text{CURRENT}}/\text{GDPIPD}_{\text{BASE}}$, as described in "Attachment I") for each restart thereafter during such Calendar Month as reimbursement for SELLER's start-up costs. Such amounts shall be included by SELLER in the next Monthly Invoice.

(24) Startup Periods - The maximum time to full load under normal (non-emergency) system conditions shall be thirty (30) minutes for warm start-ups and two (2) hours for cold start-ups. When requested by HELCO under emergency conditions, SELLER shall use reasonable efforts to accelerate such start-up periods to the extent the Facility is capable of doing so within manufacturer's specifications and warranties.

(25) Ramp Rates - The maximum ramp rate during normal (non-emergency) system conditions shall be 4.4 MW per minute, per CT up to 22 MW for each CT. When requested by HELCO under emergency conditions, SELLER shall use reasonable efforts to maximize such ramp rates to the extent the Facility is capable of doing so within manufacturer's specifications and warranties.

(26) QLPU - If one CT is operating in Simple Cycle or combined cycle, the QLPU for any three (3) second period shall be the lesser of (i) 4.4 MW or (ii) 22.0 MW less the current output of such CT. If both CTs are operating in Simple Cycle or in combined cycle, the QLPU for any three (3) second period shall be the lesser of (i) 8.8 MW or (ii) 44.0 MW less the current cumulative output of such CTs.

(27) Simple Cycle Operation - During the Phase 1 Period, the Facility shall run with one (1) CT in Simple Cycle, as requested by HELCO Dispatch. During the Phase 2 Period,

the Facility may be run with one (1) or two (2) CTs in Simple Cycle, as requested by HELCO Dispatch, subject to the following provisions:

(i) HELCO and SELLER shall cooperate with each other in good faith to determine on a month-by-month basis, the extent to which the Facility may be dispatched by HELCO in Simple Cycle during the remainder of the calendar year, without jeopardizing the Facility's QF Status (the "Allowed Simple Cycle Period"). In addition, on a monthly basis, at least one (1) week prior to the end of the Calendar Month, SELLER shall provide HELCO with a calculation of the Facility's operating and efficiency standards as set forth in the QF Requirements based on the Facility's operation during the calendar year up to that point in time; provided, that, HELCO use such calculations and related information provided to HELCO under this Section only for purposes of determining the Allowable Simple Cycle Period and shall keep such calculations and related information confidential and shall not disclose such calculations and information to any third parties without the prior express written consent of SELLER.

(ii) HELCO shall notify SELLER if it intends to request that the Facility run in Simple Cycle. Upon receipt of such notice, SELLER shall promptly provide HELCO with an update of the Allowed Simple Cycle Period (if any, to the extent agreed by the parties) for the remainder of the calendar year (in writing or to be confirmed in writing). In the event that HELCO then requests that the Facility run in Simple Cycle and the Facility loses its QF status, HELCO shall indemnify, reimburse and make SELLER whole with respect to (A) the documented, incremental, reasonable, out of pocket costs and expenses of such loss of QF status, including the legal costs and other expenses of filings before federal and state regulatory agencies, if any, up to Fifty Thousand Dollars (\$50,000) and (B) any reduction in the payments SELLER is entitled to receive pursuant to the order of such agencies or other adverse regulatory impact on SELLER's economic arrangements with HELCO as set forth in this Agreement (up to the amounts SELLER would have received under Article V herein), but only to the extent that SELLER demonstrates that such loss of QF status is due to Simple Cycle operation requested by HELCO and that the actual number of Simple Cycle hours the CTs ran exceeded the Allowed Simple Cycle Period for the remainder of the calendar year; provided, however, the foregoing indemnification with respect to clause (B) shall not apply if SELLER shall have received from the PUC or other applicable federal or state agency a satisfactory order to the effect that the Facility shall not be subject to rate regulation or any reduction in the payments SELLER is entitled to receive following any resulting loss of QF status.

(iii) In the event that the Facility loses its QF status as described in clause (ii) above, HELCO shall cooperate with SELLER in seeking any necessary regulatory approvals with the intention of preserving the economic arrangements between the parties set forth herein.

(iv) For any period during which HELCO requests the Facility to run in Simple Cycle, HELCO shall indemnify, reimburse and make SELLER whole with respect to any and all reasonable, documented, incremental, out-of-pocket costs (such as the incremental costs of providing an alternative source of thermal energy to the purchaser(s) under the Thermal Energy Sales Contract(s)) expenses, lost economic benefits (which shall include the difference

between revenues under the Thermal Energy Sales Contract(s) and this Agreement for such incremental energy) or liabilities to third parties under the Thermal Energy Sales Contract(s) resulting from such Simple Cycle operations, up to a limit of Five Thousand Dollars (\$5,000) per diem for each day that the Facility runs in simple cycle pursuant to a HELCO request. Such reimbursement up to \$5,000 per diem shall be subject to an overall limitation on HELCO's annual liability of Five Hundred Thousand Dollars (\$500,000).

(v) All requests by SELLER for indemnification or reimbursement under this Section shall be paid promptly by HELCO, subject to verification.

(vi) For purposes of this Section, Simple Cycle operations in connection with normal startup of the Facility shall not be considered a request by HELCO that the Facility run in Simple Cycle.

(vii) A failure by SELLER to operate the Facility in Simple Cycle at HELCO's request, as provided herein, shall count against SELLER for purposes of calculating EAF and EFOR, which shall be HELCO's exclusive remedy in the event of such failure to operate.

(viii) In conjunction with the application or motion for approval of this Agreement, the parties shall petition the PUC for a declaratory order determining that SELLER will not be deemed to be a "public utility" within the meaning of Section 269-1, Hawaii Revised Statutes, in the event that HELCO requests that the Facility run in Simple Cycle, and the Facility loses its QF status due to Simple Cycle operation requested by HELCO.

D. Warranties and Guarantees of Performance

(1) Equivalent Availability Factor - SELLER warrants and guarantees that the Facility will achieve an EAF of at least the following amounts:

From the Phase 1 In-Service Date to the End of Phase 2 Start-Up - 85%;

End of Phase 2 Start-Up to end of Transition Period and all Contract Years thereafter (except years in which there is a Major Equipment Overhaul) - 90%.

Years in which there is a Major Equipment Overhaul - 89%.

If a Force Majeure event(s) and/or a Catastrophic Equipment Failure(s) occur, the EAF calculation for purposes of computing Liquidated Damages or Event of Default criteria shall have a reduction to both the numerator and denominator equal to the number of equivalent full load hours of the Force Majeure event(s) and/or Catastrophic Equipment Failure(s) which occurred during the period represented by the calculation.

(2) Equivalent Forced Outage Rate - SELLER warrants and guarantees that the Facility will not exceed an eight percent (8%) EFOR from the Phase 1 In-Service Date until

the End of Phase 2 Start-Up and a four percent (4%) EFOR from the End of Phase 2 Start-Up to the end of the Transition Period, and in each Contract Year thereafter. If a Force Majeure event(s) and/or a Catastrophic Equipment Failure(s) occur, the EFOR calculation for purposes of calculating Liquidated Damages or determining Event of Default criteria shall have a reduction to both the numerator and denominator equal to the number of equivalent full load hours of the Force Majeure event(s) and/or Catastrophic Equipment Failure(s) which occurred during the period represented by the calculation.

(3) Firm Capacity - SELLER warrants and guarantees that after the first twelve (12) months following the Phase 2 In-Service Date, the Facility will have and maintain the capability to produce and deliver to the Metering Point, in accordance with the terms of this Agreement, the Firm Capacity.

(4) Quality - SELLER warrants and guarantees that the Facility will produce power that meets the quality standards in Section 3.2C(1), (2), and (3).

(5) Unit Trips - SELLER warrants and guarantees that the Unit Trips of the Facility per annum will not exceed twelve (12) per annum from the Phase 1 In-Service Date until the End of Phase 2 Start-Up and six (6) per annum from the End of Phase 2 Start-Up to the end of the Transition Period, and during any Contract Year thereafter.

(6) EXCLUSIVE WARRANTIES - THE FOREGOING WARRANTIES CONSTITUTE THE EXCLUSIVE WARRANTIES UNDER THIS AGREEMENT AND OPERATE IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL OR WRITTEN. SELLER AND HELCO DISCLAIM ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

E. Metering

(1) Meters - HELCO shall purchase and own meters suitable for measuring the integrated Net Electric Energy Output of the Facility in kW and kWh on a time of use basis and of reactive power flow in kilovar and kilovarhours. HELCO will calibrate these devices in accordance with the latest edition of the American National Standards Institute Code for Electricity Metering. The kilovar hour meters shall be ratcheted to prevent reversal in the event the power factor is leading. HELCO shall install, maintain and annually test such meters and shall be reimbursed by SELLER for all reasonably incurred costs (including applicable sales taxes) for such installation, maintenance and testing work. SELLER shall furnish, install and maintain in accordance with HELCO's requirements and at no charge to HELCO, all conductors, service switches, fuses, meter sockets and cases, meter and instrument transformers, switchboard meter test switches, meter panels, steel structures and similar devices required for service connection and meter installations. HELCO shall install two (2) complete sets of metering equipment using the same instrument transformers for each metering station. SELLER may, at

its own expense, monitor (by electronic means or otherwise) any meters described in this Section 3.2E(1).

(2) Communications, Telemetry and Remote Control Equipment - HELCO shall purchase, install and own such communications, telemetry and remote control equipment at the Facility as may reasonably be required in order to allow HELCO to dispatch the electrical energy from the Facility as required to optimize economic and reliable operation of HELCO's electrical system. Such equipment shall meet HELCO's reasonable specifications for transmission of metered data to locations specified by HELCO. If HELCO installs and maintains such communications, telemetry and remote control equipment at the Facility, SELLER shall reimburse HELCO for its reasonable procurement and installation costs related thereto up to One Hundred Thousand Dollars (\$100,000) and maintenance costs related thereto, which shall be an up front fixed payment of Eighty-Two Thousand Dollars (\$82,000) at the time such equipment is installed. Subsequent to the initial Facility design, HELCO may purchase and install such additional communications, telemetry, and remote control equipment and may require SELLER to install at HELCO's expense, any reasonably necessary additional transducers, test switches, AC and DC sources, telephone lines and interconnecting wiring at any time during the Term.

(3) Meter Testing - HELCO shall provide at least twenty-four (24) hours notice to SELLER prior to any test it may perform on the metering or telemetry equipment. SELLER shall have the right to have a representative present during each such test. Either party may request additional tests in addition to the annual test provided for in Section 3.2E(1) and shall pay the cost of such additional test. If any of the metering equipment is found to be inaccurate at any time, HELCO shall promptly cause such equipment to be made accurate, and the period of inaccuracy, as well as the estimate for correct meter readings, shall be determined in accordance with Section 3.2E(4).

(4) Corrections - If any test of metering equipment conducted by HELCO indicates that its meter readings are in error by one percent (1%) or more, the meter readings from such equipment shall be corrected as follows: (i) determine the error by testing the meter at approximately ten percent (10%) of the rated current (test amperes) specified for the meter; (ii) determine the error by testing the meter at approximately one hundred percent (100%) of the rated current (test amperes) specified for the meter; (iii) the average meter error shall then be computed as the sum of one-fifth (1/5) the error determined in (i) and four-fifths (4/5) the error determined in (ii). The average meter error shall be used to adjust the bills for the amount of electric energy supplied to HELCO for the previous six (6) months from the Facility, unless HELCO's or SELLER's records conclusively establish that such error existed for a greater or lesser period, in which case the correction shall cover such actual period of error, except as specified in Section 6.3..

F. Fuel and Other Materials

SELLER shall be responsible for acquiring, transporting and storing adequate supplies of Fuel and other materials used in the operation of the Facility during the Term. An

adequate supply of Fuel under normal conditions shall, at a minimum, include at least a twenty-four (24) day reserve on the Site, which shall be determined by SELLER in good faith based upon (i) the average level of HELCO Dispatch during the previous six (6) months and (ii) the expected level of HELCO Dispatch during the following month as indicated by HELCO. In the event either SELLER or HELCO has available excess Fuel which is not necessary for operations, and the other party is experiencing a fuel shortage, the parties shall, to the extent possible, cooperate on a temporary, emergency basis, by making available such excess Fuel to the other upon such party's request, subject to full reimbursement for all costs.

G. Waste Handling

SELLER shall be responsible for the handling and proper disposal of any waste products produced by the Facility, including but not limited to waste water and ash, or for any costs associated therewith.

H. Emissions

SELLER shall be responsible for the control and consequences of any and all emissions produced as a result of operation of the Facility and for all costs associated therewith.

I. Compliance with Laws

SELLER shall at all times comply with all valid and applicable federal, state and local laws, rules, regulations, orders, permit conditions and other governmental actions (where non-compliance may materially adversely impact SELLER's performance under this Agreement) and shall be responsible for all costs associated therewith.

J. Adequate Spare Parts

SELLER shall at all times keep on hand or have ready access to sufficient spare parts to maintain the Facility in a manner which provides reasonable assurance, consistent with Good Engineering and Operating Practices, that the warranted performance of the Facility will be achieved. SELLER agrees to budget and maintain at least Five Hundred Thousand Dollars (\$500,000) (1998\$) worth (as escalated by the factor of $\text{GDPIPD}_{\text{CURRENT}}/\text{GDPIPD}_{\text{BASE}}$) as described in "Attachment I") of such spare parts for the Facility.

K. Periodic Meetings

The General Manager or an alternate satisfactory to HELCO shall attend periodic meetings with appropriate HELCO representatives and be prepared to discuss Facility operations and maintenance and interface with HELCO's electrical system operations. Such meetings may be regularly scheduled or called specifically to address particular problem areas.

L. Maintenance of Qualifying Facility (QF) Status

SELLER shall use its reasonable best efforts to be in compliance with the criteria for qualifying cogeneration facilities as set forth in HAR Sections 6-74-6 and 6-74-7 and 18 CFR Sections 292.205 and 292.206 (the "QF Requirements") following the Phase 2 In-Service Date, except to the extent HELCO requests that the Facility operate in a manner that would jeopardize its QF status (e.g., extended Simple Cycle operation). SELLER shall certify its compliance with the QF Requirements to HELCO each year (if applicable). Loss or forfeiture of QF status shall not affect the prices set forth in Article V or the parties' obligations hereunder; provided that, (i) upon the loss or forfeiture of QF status for reasons other than resulting from HELCO Dispatch, SELLER shall promptly seek FERC certification (if applicable) as an EWG under the Energy Policy Act of 1992; (ii) if, as a result of SELLER's loss or forfeiture of QF status, SELLER is able to deliver additional capacity to HELCO above the Firm Capacity, such additional capacity shall be offered to HELCO and HELCO shall have the option to purchase such additional capacity at a discount of twenty-five percent (25%) from the Capacity Rates set forth in Article V; and (iii) if, as a result of SELLER's loss or forfeiture of QF status, SELLER is able to realize cost savings resulting from a reduction or elimination of thermal energy deliveries, SELLER shall provide HELCO with a monthly rebate of fifty percent (50%) of such savings realized by SELLER. Except with respect to HELCO's indemnification obligations as provided for in Section 3.2C(27) and this Section 3.2L, any change in the QF status of the Facility after the Execution Date shall not affect either party's obligations under this Agreement.

M. Notice of Certain Events

To the extent any of the following events occur and could reasonably be likely to have a material adverse effect on SELLER's performance under this Agreement, SELLER shall provide HELCO with notice of the occurrence of such event and SELLER's proposed measures to ensure that such event will not lead to an Event of Default or otherwise materially impair SELLER's ability to perform its obligations under this Agreement:

(1) SELLER shall fail to comply with any provision with respect to any obligations for borrowed money in excess of One Million Dollars (\$1,000,000) if the effect of such failure to comply is to cause, or to permit the holder or holders of such obligations (or a trustee on their behalf), to cause such obligations to become due prior to their stated maturity, except to the extent that such failure to comply shall have been cured or waived prior to any acceleration of such obligations thereunder and said cure or waiver shall not have involved the receipt by any such holder or holders of any additional consideration, financial or otherwise.

(2) Any final order, judgment or decree is entered in any proceeding, which final order, judgment or decree provides for the payment of money in excess of One Hundred Thousand Dollars (\$100,000) by SELLER, and SELLER shall not discharge the same or provide for its discharge in accordance with its terms, or procure a stay of execution thereon within sixty (60) days from the entry thereof, and within such period of sixty (60) days, or such longer period during which execution on such judgment shall have been stayed, appeal therefrom and cause the execution thereof to be stayed during such appeal.

(3) SELLER shall fail to make any payment for materials or labor used in the engineering, design, construction, maintenance or operation of the Facility within ninety (90) days after the due date thereof, except for payment obligations contested in good faith by SELLER or adequately bonded to the reasonable satisfaction of HELCO or contract retentions withheld during SELLER's review of a contractor's performance.

(4) The Financing Parties shall declare an event of default under the Financing Documents.

(5) SELLER shall have received any notice that it is not in compliance with any of the applicable permits that enable SELLER to operate the Facility and SELLER has not obtained a consent decree or equivalent agreement to allow the continued lawful operation of the Facility.

N. Labor Disputes

If, after the Phase 2 In-Service Date, SELLER experiences a work stoppage, work slowdown or walkout as a result of a labor dispute with its employees, or between any entity with which SELLER has subcontracted operational responsibility and the employees of such entity, SELLER shall provide an adequate, qualified workforce to operate and maintain the Facility within seventy-two (72) hours after such stoppage, slowdown or walkout begins. If SELLER fails to meet this obligation, it shall pay to HELCO the sum of Seven Thousand Five Hundred Dollars (\$7,500) for each day or partial day during which such adequate, qualified workforce is not provided and there is a reduction in output below the level called for by normal HELCO Dispatch, up to a maximum period of fourteen (14) days. SELLER shall provide prompt written notice to HELCO as to the date and time at which it has met this obligation. If, at any time after the aforesaid seventy-two (72) hour period has expired, but during the continuation of the SELLER work stoppage, slowdown or walkout, the Facility is experiencing a reduction in output below the level called for by normal HELCO Dispatch, (i) it shall be presumed that such reduction is the result of a lack of an adequate, qualified workforce unless SELLER reasonably demonstrates that such reduction is attributable to other causes, and (ii) the Seven Thousand Five Hundred Dollar (\$7,500) payment shall apply as set forth above and such payment shall constitute HELCO's sole remedy for a continued labor dispute.

3.3 Rights and Obligations of HELCO

A. Dispatch of Facility Power

(1) Routine Dispatch - HELCO shall have the right to dispatch capacity and real and reactive power delivered from the Facility to its system as it deems appropriate in its reasonable discretion, subject only to and consistent with Good Engineering and Operating Practices, the Dispatch Constraints set forth in Section 3.2C of this Agreement and SELLER's maintenance schedule determined in accordance with Section 3.2C(8). HELCO Dispatch will either be by SELLER's manual control under the direction of HELCO's System Operator or by

computerized control by HELCO's Energy Management System (to the extent HELCO may utilize computerized control now or at a future date) in each case at HELCO's reasonable discretion. Unless otherwise agreed to, HELCO may request the maximum real power output at 0.85 lagging power factor from the Facility, but shall not reduce the load on the Facility below those standards specified in Section 3.2C(9) for each operating configuration. Refusal to comply with HELCO Dispatch shall result in an unreported derating, which shall be measured as the shortfall (if any) in the amount of electricity delivered by the Facility from the amount of electricity requested by HELCO Dispatch, from the time such dispatch request was received until such time as SELLER complies with such dispatch request. Upon request by SELLER, HELCO shall demonstrate that such dispatch instructions or signals were given to SELLER to accomplish the request made by HELCO Dispatch. SELLER shall utilize the full capability of the Facility to satisfy its obligation to deliver Firm Capacity in accordance with HELCO Dispatch by taking necessary actions, including but not limited to, the reduction or elimination of steam delivery to the thermal host.

(2) Demonstration of Loading and Unloading Ramp Rates - HELCO shall have the right at any time, other than during start-up periods, maintenance or other outages, upon reasonable notice with "cause," to direct the Facility to demonstrate its ability to meet the maximum ramp rate specified in Section 3.2C(25). For purposes of this Section 3.3A(2), "cause" shall mean the failure of the Facility to meet the required loading or unloading ramp rates specified in accordance with HELCO Dispatch by HELCO's System Operator. A one (1) hour notice will be given to SELLER prior to the initial ramp rate test, which shall be performed by HELCO's System Operator testing the Facility by increasing or decreasing load at the maximum ramp rate. If the Facility passes the initial ramp rate test, subsequent ramp tests may be conducted by HELCO from that time to the end of the next weekend upon notice by telephone no less than five (5) minutes prior to commencement of each such test. If the Facility is unable to achieve either the loading (increasing) ramp rate or the unloading (decreasing) ramp rate, this event shall be considered a ramp derating in the amount of the difference between the Facility's load at the conclusion of the test and the load the Facility should have achieved in accordance with the maximum ramp rate. This ramp derating will be assumed to start at the end of the test and will end at the earlier of (i) when the Facility demonstrates that the maximum loading and/or unloading ramp rate has been restored or (ii) when SELLER declares to HELCO that the Facility is ready to be tested again (if the Facility subsequently passes such test); provided that, if SELLER takes an outage during such ramp derating period, no ramp derating penalty shall apply against SELLER for such outage period. The ramp derating period shall not count for purposes of calculating EAF or EFOR until SELLER declares an outage pursuant to this Section 3.3A(2), in which event, such outage shall count against EAF and EFOR, as applicable, starting from the earlier of the time SELLER declares such outage. Notwithstanding anything herein to the contrary, SELLER's total liability for any ramp derating hereunder shall not exceed Five Thousand Dollars (\$5,000) during any calendar week or Two Hundred Fifty Thousand Dollars (\$250,000) during any twelve (12) month period. In the event SELLER's total liability for any ramp derating hereunder exceeds One Hundred Fifty Thousand Dollars (\$150,000) during any calendar year, such excess shall be deposited into the Maintenance Account and shall be disbursed in accordance with the provisions of Section 8.3.

(3) Dispatch Notices - HELCO shall provide SELLER with: (i) the Annual Dispatch Notice no later than sixty (60) days prior to the anticipated Phase 1 In-Service Date for the first Contract Year, and prior to September 1 for each Contract Year thereafter; and (ii) the Weekly Unit Commitment Schedule no later than Friday, 12:00 noon, Hawaii Standard Time of each week. HELCO's failure to comply with the foregoing notice provisions shall not affect HELCO's right to dispatch the Facility pursuant to this Section 3.3A.

B. HELCO Right to Buyout

(1) General - At any time up until the Phase 1 In-Service Date, if HELCO reasonably determines that it no longer needs the capacity addition provided by the Facility, HELCO may choose to buyout this Agreement by giving SELLER written notice of its decision. Promptly upon receipt of such notice, SELLER shall take steps to cease all construction activity and proceed to take such steps as may be necessary to mitigate the losses due to such election. SELLER shall use its best efforts to salvage the value of any equipment or materials purchased or contracts signed for the Facility and the Interconnection Facilities. All such mitigation efforts shall be made in consultation with HELCO and shall cease (unless continued by HELCO as described below) one hundred and eighty (180) days after receipt of the buyout notice from HELCO (the "Salvage Period"). Upon the earlier of completion of all such mitigation efforts or the end of the Salvage Period, SELLER shall render an accounting to HELCO showing in detail: (i) the "Project Costs Incurred," up to the Settlement Date (as defined below), including estimated costs for the period from the date of such accounting to the Settlement Date, which shall be the aggregate amount expended or incurred by SELLER (or affiliates thereof) with regard to the acquisition, development and construction of the Facility and the Interconnection Facilities and the financing thereof, including without limitation (and without duplication) all amounts paid or payable with regard to the construction contract, Site preparation, interconnect and start-up costs, materials and equipment, fuel inventory, insurance, taxes, project development fees and expenses, construction management expenses and fees, fees or penalties, charges, costs or expenses under all Project Documents, all SELLER debt for financing the Facility and the Interconnection Facilities (including without limitation, principal, interest, fees, premiums, defeasance costs and penalties relating thereto), equity funds, if any, invested in the Project (including without limitation, fees, premiums and penalties relating thereto), fees and expenses incurred in arranging financing for the Facility and attorneys' fees and disbursements, but excluding fees to Guarantor(s) for providing the Guarantee(s) except to the extent such fees would normally be payable in an arms' length transaction, and (ii) the "Net Salvage Proceeds," which shall be the aggregate amount of proceeds received from the salvage efforts described above, less costs and expenses incurred in such efforts. After the accounting is rendered, HELCO shall have sixty (60) days (the "Audit Period") to audit such accounting only to verify that Project Costs Incurred were, in fact, incurred in direct relation to the Facility and the Interconnection Facilities and that Net Salvage Proceeds, in fact, reflect such net proceeds. Upon the later of thirty (30) days after the end of the Audit Period or satisfactory completion of the requirements of Section 3.3B(2) (the "Settlement Date"), HELCO shall pay to SELLER the sum of (X) Project Costs Incurred, where estimated amounts included in SELLER's accounting shall be replaced with actual amounts incurred or expended as reported to and verified by HELCO, plus (Y) the Buyout Payment (as defined below), minus (Z) Net Salvage Proceeds. For purposes

of this Agreement, the "Buyout Payment" shall be determined according to the following schedule, depending upon the date upon which the buyout notice is received.

On or before the PUC Approval Date	\$ 5,000,000
On or before the Closing Date	\$ 8,000,000
On or before the Phase 1 In-Service Date	\$ 10,000,000

In the event mitigation efforts are not completed by the end of the Salvage Period, HELCO may at its own expense continue such efforts and retain the proceeds thereof. Once the payment to be made on the Settlement Date is made in full, this Agreement shall be deemed canceled and the parties shall have no further obligations hereunder.

(2) Ownership of Unsalvageable Items - Upon termination of the Audit Period, SELLER, at HELCO's request, shall promptly take all actions as may be necessary (a) to convey to HELCO free and clear of all liens and encumbrances (other than those of HELCO and the Financing Parties) all of SELLER's right, title and interest in the Facility and to the Interconnection Facilities and any and all materials, equipment, design materials and supplies relating to the Facility and to the Interconnection Facilities, including without limitation, any such materials, equipment, design materials or supplies located at the Site or in transit to the Site, whether or not completed or ready for use or incorporated into the Facility and to the Interconnection Facilities, and any such materials, equipment, design materials or supplies being processed, fabricated, assembled or prepared off the Site for installation in the Facility or the Interconnection Facilities or for use at or in connection with the Facility or the Interconnection Facilities, and (b) to assign to HELCO, with such consents and undertakings as may be necessary to make such assignments fully effective, the Project Documents. SELLER shall use reasonable efforts to assure that it has sufficient rights with respect to materials, equipment, design materials and supplies purchased or contracted for by SELLER, and sufficient rights under all leases and contracts relating to Facility and the Interconnection Facilities, to enable SELLER to comply with its obligations pursuant to this Section 3.3B(2). In the event of such assignment, HELCO shall assume, as of the Settlement Date, all of SELLER's right, title, interest and obligations in the foregoing materials, equipment, design materials, supplies and Project Documents and SELLER shall be fully discharged from such obligations.

C. HELCO Right to Defer

(1) Prior to the PUC Approval Date - At any time up until the PUC Approval Date, HELCO may once choose to defer the Phase 1 In-Service Date and the Phase 2 In-Service Date by up to eighteen (18) months beyond the then expected Phase 1 In-Service Date Deadline and Phase 2 In-Service Date Deadline, as applicable, by giving SELLER sixty (60) days written notice of its decision to defer and the extent of the deferral period, which shall commence at the end of such sixty (60) day period. Upon the written request (and at the expense) of HELCO given not more often than once in any six (6) month period and before a deferral notice under this Section 3.3C(1) has been given, SELLER shall within forty-five (45) days provide an

estimate ("Pre-Deferral Estimate") of the anticipated costs (to the extent then known by SELLER) to be paid by HELCO under this Section 3.3C(1) if a deferral notice were given at or about the time of such request. Consistent with the obligation set forth below to minimize such costs during the deferral period, SELLER shall take such steps as it reasonably deems necessary to assure the timely occurrence of the Phase 1 In-Service Date and the Phase 2 In-Service Date (as either or both may be so deferred), including obtaining or renewing applicable permits, contracts, rights or properties, and HELCO shall cooperate with SELLER in such efforts. Upon the commencement of the deferral period, SELLER shall take such steps as may be reasonably necessary to minimize out-of-pocket costs of the parties interested in participating in the Facility (including parties acting as suppliers of goods, services, financing or otherwise) which result from such deferral, excluding from such obligation to minimize, however, deferral fees, penalties or similar charges by such parties which have been agreed upon (and notice of which has been given to HELCO or included in any Pre-Deferral Estimate). HELCO shall bear all additional costs ("Deferral Costs") incurred by SELLER with respect to the Facility of each type includable in Project Costs Incurred which result from a deferral. SELLER shall, on a monthly basis, provide HELCO with an accounting of all Deferral Costs incurred by SELLER and then payable. HELCO shall pay to SELLER all Deferral Costs, together with a monthly deferral fee (the "Deferral Fee") equal to Fifty Thousand Dollars (\$50,000) within thirty (30) days of such accounting.

(2) Prior to the Closing Date - At any time after the PUC Approval Date and prior to the Closing Date, HELCO may, by giving SELLER sixty (60) days written notice of its decision to defer and the extent of the deferral period, which shall commence at the end of such sixty (60) day period, once request that the Phase 1 In-Service Date or Phase 2 In-Service Date, or both, be deferred beyond the then expected Phase 1 In-Service Date or Phase 2 In-Service Date, as applicable, by up to twelve (12) months (less the number of months of the deferral period, if any, elected under Section 3.3C(1) above). Upon the written request (and at the expense) of HELCO given not more often than once in any six (6) month period and before a deferral notice under this Section 3.3C(2) has been given, SELLER shall within forty-five (45) days provide a Pre-Deferral Estimate with respect to the anticipated costs (to the extent then known by SELLER) to be paid by HELCO under this Section 3.3C(2) if a deferral notice were given at or about the time of such request. Upon receiving a deferral request from HELCO in writing, SELLER and HELCO shall immediately commence consulting between themselves and among all the parties interested in the Facility, whether as suppliers of goods, services or financing or otherwise, with the intent of obtaining the consent of all such parties to such deferral on terms and conditions satisfactory to each of them, HELCO and SELLER. Such consultations shall continue until the earlier of (i) the commencement of such deferral only upon terms and conditions agreed upon by all the parties interested in the Facility or (ii) sixty (60) days after the giving of the deferral request by HELCO (the "Consultation Period"). During the Consultation Period, SELLER may continue to proceed towards reaching the Phase 1 In-Service Date and Phase 2 In-Service Date, as applicable, without taking into account the proposed deferral. HELCO shall bear all (i) reasonable additional out-of-pocket costs of SELLER and the other interested parties incurred during the Consultation Period as a result of such consultations; (ii) all Deferral Costs incurred by SELLER which result from the deferral, if implemented. SELLER shall, on a monthly basis, provide HELCO with an accounting of such out-of-pocket costs and

Deferral Costs incurred by SELLER and then payable. HELCO shall pay to SELLER all such costs together with the Deferral Fee (which shall be increased to Seventy-Five Thousand Dollars (\$75,000) per month following the PUC Approval Date) within thirty (30) days of each such accounting.

(3) On or After the Closing Date and Prior to Phase 1 In-Service Date - At any time on or after the Closing Date and prior to the Phase 1 In-Service Date, HELCO may, by giving SELLER sixty (60) days written notice of its decision to defer and the extent of the deferral period, which shall commence at the end of such sixty (60) day period, once request that the Phase 1 In-Service Date or Phase 2 In-Service Date, or both, be deferred beyond the then expected Phase 1 In-Service Date or Phase 2 In-Service Date, as applicable, by up to twelve (12) months (less the number of months of the deferral period, if any, elected under Sections 3.3C(1) or 3.3C(2) above). Upon the written request (and at the expense) of HELCO given not more often than once in any six (6) month period and before a deferral notice under this Section 3.3C(3) has been given, SELLER shall within forty-five (45) days provide a Pre-Deferral Estimate with respect to the anticipated costs (to the extent then known by SELLER) to be paid by HELCO under this Section 3.3C(3) if a deferral notice were given at or about the time of such request. Upon receiving a deferral request from HELCO in writing, SELLER and HELCO shall immediately commence consulting between themselves and among all the parties interested in the Facility, whether as suppliers of goods, services or financing or otherwise, with the intent of obtaining the consent of all such parties to such deferral on terms and conditions satisfactory to each of them, HELCO and SELLER. Such consultations shall continue for the Consultation Period. During the Consultation Period, SELLER may continue to proceed towards reaching the Phase 1 In-Service Date and Phase 2 In-Service Date, as applicable, without taking into account the proposed deferral. HELCO shall bear all (i) additional out-of-pocket costs of SELLER and the other interested parties incurred during the Consultation Period as a result of such consultations; (ii) all Deferral Costs incurred by SELLER which result from the deferral, if implemented. SELLER shall, on a monthly basis, provide HELCO with an accounting of such out-of-pocket costs and Deferral Costs incurred by SELLER and then payable. HELCO shall pay to SELLER all such costs together with the Deferral Fee (which shall be increased to One Hundred Fifty Thousand Dollars (\$150,000) per month on or after the Closing Date) within thirty (30) days of each such accounting.

(4) Adjustments to Times - Any deferral under Section 3.3C(1) or (2) shall result in each Milestone Date, In-Service Date Deadline or other deadline in this Agreement and the Guarantee(s) (including time milestones reflecting limits of liability in the Guarantee(s)) by which performance of SELLER is measured or affected to be deferred by a period equal to the duration of the actual delay (as mutually agreed upon by HELCO and SELLER) incurred by SELLER as a result of such deferral, plus any additional period of time as is reasonably necessary to equitably reflect SELLER's need to cease and restart efforts, as established by documentary evidence, related to such Milestone Date, In-Service Date Deadline, or other deadline, which additional period shall not be less than ninety (90) days. Any obligation of SELLER under this Agreement shall be excused to the extent and for the period that its inability to perform results from the actual delay it incurs as a result of any deferral under Section 3.3C(1) or (2).

(5) Benefits to Others - All obligations of HELCO to make payments under Sections 3.3C(1) or (2) or Section 3.3B shall accrue (without duplication) to the benefit of SELLER and each other party to which such payment would in turn be made by SELLER.

(6) No Material Adverse Impact - Notwithstanding anything in this Section 3.3C to the contrary, HELCO's right to defer the Phase 1 In-Service Date or the Phase 2 In-Service Date shall be limited to that extent that SELLER reasonably demonstrates that such deferral would have a material adverse effect on SELLER's ability to develop and finance the Facility on such deferred basis, including without limitation, SELLER's ability to obtain or maintain any permit, to meet a Milestone Date or In-Service Date in the future (as re-set in accordance with this Section for such deferral) or to utilize special purpose revenue bonds (if any) which are designated, authorized, or allocated to SELLER for use in connection with the financing of Facility. In the event SELLER reasonably demonstrates that HELCO's deferral request under this Section would cause such material adverse effect, SELLER shall use reasonable good faith efforts to mitigate or eliminate the cause of the material adverse effect, which may include re-applying for or obtaining modifications to permits or financing arrangements; provided that (i) HELCO shall reimburse SELLER for its costs in connection with such efforts, (ii) HELCO shall cooperate and assist SELLER with such efforts to the extent requested by SELLER, and (iii) SELLER shall not be required to re-apply for or seek modification of any permit or financing if SELLER reasonably demonstrates that such process would subject the Facility to material delays, interference or increased costs not borne by HELCO.

(7) Impact on PSD Permit - In the event that, pursuant to the terms of this Section 3.3C(7), SELLER shall not be required to re-apply for or obtain modifications to the PSD Permit, HELCO's right to defer the Phase 1 In-Service Date or the Phase 2 In-Service Date shall be given effect to the extent possible under such PSD Permit then in effect. Notwithstanding anything contained herein to the contrary, HELCO shall not exercise its deferral rights in a manner or to the extent that would jeopardize PUC approval of this Agreement or the rates to be paid by HELCO for capacity or energy contained herein.

(8) Changed Circumstances - In the event HELCO exercises its deferral rights under this Agreement and there subsequently occurs or is reasonably likely to occur, by the passage of time, a change in law or a change in circumstance beyond SELLER's control (e.g. interest rate changes), which would cause a material adverse impact on the development schedule or economics of the Facility, then either the deferral period shall be shortened so as to prevent such material adverse effect or HELCO shall reimburse SELLER for the costs and expenses, including lost economic benefits directly related to such material adverse effect, associated with exercising such deferral right; provided that in such event, SELLER shall use reasonable good faith efforts to mitigate or eliminate the cause of the material adverse impact, which may include re-applying for or obtaining modifications to permits or financing arrangements, subject to (i) SELLER's

right to reimbursement from HELCO for its costs in connection with such efforts, (ii) HELCO's obligation to cooperate and assist SELLER with such efforts to the extent requested by SELLER, and (iii) SELLER's right to refuse to re-apply for or seek modification of any permit or financing if it reasonably demonstrates that such process would subject the Facility to material delays, interference or increased costs not borne by HELCO.

D. HELCO Right to Require Independent Engineering Assessment

(1) Implementation of Independent Engineering Assessment - If (A) HELCO has "reasonable cause" to believe that SELLER is failing to operate or maintain the Facility in accordance with Good Engineering and Operating Practices and that such failure is likely to result in a failure to meet the performance standards set forth in Section 3.2C, (B) SELLER is in breach of this Agreement with respect to the performance or operation of the Facility and has not cured such breach within the time limits specified in Article VII; or (C) if otherwise required by Article VII, HELCO may require that the practices in question be assessed by a qualified professional engineering firm to be chosen from the Qualified Independent Engineers List attached to this Agreement as "Attachment H" and revised from time to time under Section 3.3D(2). For purposes of this Section 3.3D(1), "reasonable cause" shall mean SELLER's failure to operate the Facility in accordance with Section(s) 2.1D, 3.2A(6), 3.2B(1-3) and 3.2C(1-4, 9-21, 24-26), which HELCO brings to SELLER's attention and which SELLER fails to remedy in accordance with Good Engineering and Operating Practices within ninety (90) days thereafter. The parties shall promptly undertake to agree on a firm to be used from the Qualified Independent Engineers List; provided, however, that if such agreement is not reached within seven (7) days after HELCO gives notice to SELLER that it is invoking its rights under this Section 3.3D, the firm shall be chosen from the Qualified Independent Engineers List by HELCO. The engineering firm selected shall make its determination (an "Independent Engineering Assessment") as to whether the practices in question conform to Good Engineering and Operating Practices as promptly as possible under the circumstances. If such determination is that the practices in question do not so conform, the engineering firm shall recommend necessary actions by SELLER to bring it within Good Engineering and Operating Practices. If the engineering firm's recommendation requires action by SELLER to change its practices, SELLER shall take such actions. Where action by SELLER has been recommended, the engineering firm shall determine, after reasonable consultation with SELLER within thirty (30) days (or such longer period as deemed appropriate by such engineering firm) after its recommendation is first made, whether SELLER has taken adequate action to carry out such recommendation. If the engineering firm then certifies that SELLER has failed to take adequate action, HELCO shall notify SELLER and the Financing Parties in writing of such certification and the basis therefor. Such notice shall state in bold letters that failure to respond adequately can lead to termination of this Agreement within thirty (30) days. If within thirty (30) days of such actual written notice to SELLER and the Financing Parties, neither has begun to implement such recommendation, such failure shall be an Event of Default. If within such thirty (30) day period SELLER or any Financing Party does begin to implement such recommendation, the engineering firm shall monitor whether the implementation thereof is being diligently pursued. If, after reasonable consultation with the parties involved in such implementation, the

engineering firm determines that such implementation is not being diligently pursued, it shall promptly so certify to HELCO. HELCO shall thereupon promptly notify SELLER and the Financing Parties in writing of such certification and the basis therefor (the "Second Notice"). Such Second Notice shall state in bold letters that failure to respond adequately can lead to termination of this Agreement after thirty (30) days. If at any time after the thirty (30) day period commencing with receipt of the Second Notice by SELLER and the Financing Parties, the engineering firm again certifies to HELCO that implementation of its recommendation is not being diligently pursued, such certification shall constitute an Event of Default by SELLER. SELLER shall bear all costs of the engineering firm's services unless the firm's initial recommendation is that the practices in question were in accordance with Good Engineering and Operating Practices, in which case HELCO shall bear all costs of the engineering firm's services.

(2) Qualified Independent Engineers List - The Qualified Independent Engineers List attached hereto as "Attachment H" contains the names of engineering firms which both parties agree are fully qualified to perform the Independent Engineering Assessment under Section 3.3D(1). At any time, except when an Independent Engineering Assessment is being made under Section 3.3D(1), either party may remove a particular engineer from the Qualified Independent Engineers List by giving written notice of such removal to the other party. However, neither party may remove a name or names from the Qualified Independent Engineers List without approval of the other party if such removal would leave the Qualified Independent Engineers List without any names. During January of each year, both parties shall review the current Qualified Independent Engineers List and give notice to the other party of any proposed additions to the Qualified Independent Engineers List and any intended deletions. Intended deletions shall be effective upon receipt of notice by the other party, provided that such deletions do not leave the Qualified Independent Engineers List without any names. Proposed additions to the Qualified Independent Engineers List shall automatically become effective thirty (30) days after notice is received by the other party unless written objection is made by such other party within said thirty (30) days. By mutual agreement between the parties, a new name or names may be added to the Qualified Independent Engineers List at any time.

ARTICLE IV - SUSPENSION OR REDUCTION OF DELIVERIES

4.1 Initiation by HELCO

In the event that HELCO determines and notifies SELLER that a condition exists in the Facility which has a material adverse physical impact on HELCO's electrical system or the equipment of HELCO's customers and which, in HELCO's sole judgment, requires a change in electricity deliveries by SELLER, SELLER shall immediately suspend or reduce electricity deliveries as requested by HELCO's System Operator upon oral or written notice, as appropriate, to the extent required to eliminate such adverse impact. If HELCO's System Operator determines that an immediate danger to personnel or equipment exists, HELCO's System Operator may remotely separate the Facility from HELCO's electrical system by tripping the Facility's synchronizing breakers via the Energy Management System without prior notice.

A. Facility Problems

If the operation of the Facility is causing or substantially contributing to an adverse condition described in Section 4.1 due to the failure to meet the requirements of Section 2.1D, 3.2B(1), (2), or (3), or Good Engineering and Operating Practices, SELLER shall, at its own cost, modify its electric equipment or operations to the extent necessary to promptly resume full deliveries of electricity at the quality of electric service required. Upon SELLER's reasonable request, HELCO will modify its electrical system to assist SELLER in resuming full deliveries, provided that SELLER reimburses HELCO for all costs and expenses incurred by HELCO in making such modifications.

HELCO and SELLER shall use all reasonable efforts to minimize the frequency and duration of any such conditions and shall seek to promptly restore full deliveries of electricity in accordance with the terms of this Agreement.

B. HELCO System Problem

In the event that a system emergency, safety problem, forced outage or period of unscheduled maintenance on HELCO's electrical system which cannot reasonably be coordinated with SELLER's period of maintenance or shutdown is the cause of an adverse condition described in this Section 4.1, HELCO shall use all reasonable efforts to limit the duration of any such occurrence or take other appropriate action so that full deliveries of electricity by SELLER can be restored as soon as practicable. If HELCO suspends or reduces deliveries from the Facility pursuant to this Section 4.1B it shall, as soon as practicable, provide a written statement to SELLER setting forth the reasons for such suspension or reduction requests and the likely duration thereof.

4.2 No Obligation to Accept Energy

A. During periods in which SELLER has reduced or suspended deliveries of electricity as requested by HELCO or if the Facility has been separated from HELCO's electrical system pursuant to Section 4.1 in circumstances described in Section 4.1A, HELCO shall have no obligation to accept any energy which might otherwise have been received from the Facility during such period, and HELCO shall have no obligation to pay for energy which otherwise would have been available or received from the Facility during such period, and the Facility shall be considered unavailable during such period for purposes of calculating SELLER's EAF or other performance standards.

B. During periods in which SELLER has reduced or suspended deliveries of electricity as requested by HELCO pursuant to Section 4.1, in circumstances described in Section 4.1B, HELCO shall have no obligation to accept any energy which otherwise would have been received from the Facility during such period. However, HELCO shall pay for energy (to the extent accepted) in accordance with Section 5.1, and the duration of the period of separation will not be counted against SELLER's EAF or EFOR or for the purpose of calculating any other performance standard.

C. SELLER shall be paid the Capacity Charge regardless of whether SELLER has reduced or suspended deliveries of electricity pursuant to Section 4.1, in circumstances described in either Section 4.1A or Section 4.1B.

4.3 Initiation by SELLER

If SELLER suspends, or can reasonably anticipate the need to suspend or substantially reduce, deliveries of electricity below the level called for by HELCO Dispatch pursuant to Section 3.3A for any reason other than a request by HELCO pursuant to Section 4.1B, it shall provide immediate oral notice and subsequent written notice to HELCO as soon as practicable, containing a reasonably detailed statement of the reasons for such suspension or reduction and the likely duration thereof. SELLER shall use its reasonable best efforts to restore full deliveries of electricity as soon as practicable.

ARTICLE V - RATES FOR PURCHASE

5.1 Capacity and Energy Purchased by HELCO

Subject to the other provisions of this Agreement, HELCO shall accept and pay for electrical energy generated by the Facility and delivered to HELCO and shall make capacity payments to SELLER as set forth herein. Electrical energy and capacity (demand) shall be metered in accordance with Section 3.2E and such metering shall constitute the official and legal measurements for any payments hereunder.

Prior to the Phase 1 In-Service Date and the Phase 2 In-Service Date, HELCO will use its reasonable best efforts to accept energy from the Facility during the testing of each of the generation units. SELLER shall provide to HELCO a written, detailed, and comprehensive start-up plan thirty (30) days in advance of delivering any energy to HELCO and shall provide written notice to HELCO of any changes to such start-up plan as soon as reasonably practicable, but no less than three (3) days in advance of implementing those changes. SELLER shall use reasonable efforts to coordinate such start-up and testing so as to minimize any additional costs to HELCO by departing from economic dispatch in the operation of HELCO's electrical system. To the extent such costs are reasonably determined to exceed those which would have resulted from the testing of HELCO's own generating units of similar type and size, SELLER shall either modify its start-up and testing plan to accommodate HELCO's reasonable requests or reimburse HELCO for such additional costs. Electric energy delivered to HELCO pursuant hereto shall be considered non-firm, unscheduled energy, but must meet all of the quality standards established in this Agreement. HELCO shall only pay Energy Charges for any such energy actually delivered from the Facility.

A. Energy Charge

The monthly Energy Charge shall be computed by the following formula:

$$\text{Energy Charge} = (\text{Fuel Component} + \text{Variable O\&M Component}) \times (.98)$$

where:

$$\text{Fuel Component} = \text{Fuel Component}_{\text{BASE}} \times \text{Facility}_{\text{PRICE}} / \text{Fuel}_{\text{BASE}}$$

$$\begin{aligned} \text{Variable O\&M} \\ \text{Component} &= \text{Variable O\&M Component}_{\text{BASE}} \times \\ &\quad \text{GDPIPD}_{\text{CURRENT}} / \text{GDPIPD}_{\text{BASE}} \end{aligned}$$

The terms in the above formula shall have the following meanings as stated:

Fuel_{BASE}: \$4.35324/mmBtu, for Fuel defined as "#2 Diesel" (and a higher heating value of 5,860,000 BTU per barrel).

Facility_{PRICE}: During the term of the Fuel Supply Agreement, the Facility Price (stated in \$/mmBtu) shall be equal to HELCO's total cost of delivered No. 2 fuel oil at Keahole, including all ocean and land transportation charges, demand charges, storage charges, and taxes, duties and other charges as shown in HELCO's Monthly Fuel Oil Adjusted Factor Filing, or if such cost categories are not reflected in such filing, in a written statement prepared by HELCO and certified by an officer of HELCO which indicates each of the foregoing cost items for delivery of fuel in the volume required by a facility similar in size to the Facility. If such filing is not made on a timely basis, or is not accurate or does not represent generally available market conditions to SELLER, or upon the expiration or termination of the Fuel Supply Agreement, the Facility Price shall be the actual cost of Fuel delivered to the Facility, including all ocean and land transportation charges, demand charges, storage charges, and taxes, duties and other charges; provided that, upon expiration of the Fuel Supply Agreement HELCO shall have the option of supplying the Facility with Fuel pursuant to reasonable and mutually acceptable definitive terms and conditions.

GDPIPD_{CURRENT}: The meaning as described in Attachment I.

GDPIPD_{BASE}: The meaning as described in Attachment I.

Fuel Component_{BASE}: The Fuel Component_{BASE} shall be calculated as described in the following respective equations:

1. When two (2) combustion turbines (CT) are in combined cycle operation under equal dispatch levels and the Facility is being dispatched at a level of at least twenty-four (24) MW:

Fuel Component_{BASE} (2 CT) in dollars =

$$\sum_{i=1}^P [(4.50943 \times 10^{-12} \times L_i^2 - 6.07269 \times 10^{-7} \times L_i + 5.51199 \times 10^{-2}) \times KWH_i]$$

Where L_i is the integrated fifteen (15) minute load in kilowatts when SELLER has placed both combustion turbines in combined cycle operation,

KWH_i is the amount of kilowatt-hours purchased by HELCO during the associated fifteen (15) minute period,

and P is the total number of fifteen (15) minute periods during the Billing Period in which both combustion turbines are in combined cycle operation.

2. When two (2) combustion turbines (CT) are in combined cycle operation under equal dispatch levels and the Facility is being dispatched at a level of at least sixteen (16) MW but less than twenty-four (24) MW:

Fuel Component_{BASE} (2 CT) in dollars =

$$\sum_{i=1}^P [(4.35571 \times 10^{-11} \times L_i^2 - 2.45200 \times 10^{-4} \times L_i + 7.71282 \times 10^{-2}) \times KWH_i]$$

Where L_i is the integrated fifteen (15) minute load in kilowatts when SELLER has placed both combustion turbines in combined cycle operation,

KWH_i is the amount of kilowatt-hours purchased by HELCO during the associated fifteen (15) minute period,

and P is the total number of fifteen (15) minute periods during the Billing Period in which both combustion turbines are in combined cycle operation.

3. When one (1) combustion turbine (CT) is in combined cycle operation:

Fuel Component_{BASE} (1 CT) in dollars =

$$\sum_{i=1}^P [(4.97822 \times 10^{-11} \times L_i^2 - 2.67373 \times 10^{-4} \times L_i + 7.37449 \times 10^{-2}) \times KWH_i]$$

Where L_i is the integrated fifteen (15) minute load in kilowatts when SELLER has placed such combustion turbine in combined cycle operation,

KWH_i is the amount of kilowatt-hours purchased by HELCO during the associated fifteen (15) minute period.

and P is the total number of fifteen (15) minute periods during the Billing Period in which such combustion turbine is in combined cycle operation.

4. When one (1) combustion turbine (CT) is in Simple Cycle operation prior to the Phase 2 In-Service Date:

Fuel Component_{BASE} (1 CT) in dollars =

$$\sum_{i=1}^P [(7.49648 \times 10^{-11} \times L_i^2 - 3.32621 \times 10^{-4} \times L_i + 8.56126 \times 10^{-2}) \times KWH_i]$$

Where L_i is the integrated fifteen (15) minute load in kilowatts when SELLER has placed such combustion turbine in Simple Cycle operation,

KWH_i is the amount of kilowatt-hours purchased by HELCO during the associated fifteen (15) minute period.

and P is the total number of fifteen (15) minute periods during the Billing Period in which such combustion turbine is in Simple Cycle operation.

5. After the Phase 2 In-Service Date, when only one (1) combustion turbine (CT) is in Simple Cycle operation:

Fuel Component_{BASE} (1 CT) in dollars =

$$\sum_{i=1}^P [(13.0662 \times 10^{-11} \times L_i^3 - 5.44047 \times 10^{-6} \times L_i + 0.107491) \times \text{KWH}_i]$$

Where L_i is the integrated fifteen (15) minute load in kilowatts when SELLER has placed such combustion turbine in Simple Cycle operation,

KWH_i is the amount of kilowatt-hours purchased by HELCO during the associated fifteen (15) minute period,

and P is the total number of fifteen (15) minute periods during the Billing Period in which such combustion turbine is in Simple Cycle operation.

6. After the Phase 2 In-Service Date, if the Facility is operating both combustion turbines in Simple Cycle operation, the Fuel Component_{BASE} equation in (5) above shall be applied to the output of each combustion turbine individually. The two resultant Fuel Component calculations shall be summed to arrive at the total Fuel Component for the related Billing Period.

7. If the Facility is operating in combined cycle operation and HELCO's System Operator has requested that the combustion turbines operate at unequal dispatch levels, the Fuel Component equation in (3) above shall be computed separately for each combustion turbine and summed together to obtain the total Fuel Component for the related Billing Period; provided however, L_i for each calculation shall represent the integrated fifteen (15) minute load in kilowatts for the output of the related combustion turbine plus its associated steam turbine output.

Variable O&M Component_{BASE}:

The Facility's Variable O&M Component_{BASE} shall consist of:

- (i) a "Variable Component" of \$0.00092 per kWh (1995 \$); and
- (ii) an "Overhaul Component" of \$103.43 per combustion turbine operating hour (1995 \$).

Variable and Overhaul Components each shall be escalated annually by the factor of $\text{GDPIPD}_{\text{CURRENT}}/\text{GDPIPD}_{\text{BASE}}$ as described in "Attachment I."

In the computation of the Energy Charge, the Fuel Component_{BASE} (the quantity multiplied by the kWh purchased by HELCO in each fifteen (15) minute period in the Fuel Component equations above), and the Variable O&M Component_{BASE} shall each be rounded to six (6) places after the decimal (e.g., 0.123456).

A sample of the Energy Payment calculation is provided in "Attachment P."

B. Capacity Charge

Prior to the Phase 2 In-Service Date, the monthly Capacity Charge shall be computed by the following formula:

$$\text{Capacity Charge} = \text{Firm Capacity (kW)} \times \text{Capacity Rate} \\ + \text{Fixed O\&M Component}$$

On and after the Phase 2, In-Service Date, the monthly Capacity Charge shall be computed by the following formula:

$$\text{Capacity Charge} = [\text{Firm Capacity} - 2,000] \text{ (kW)} \times \text{Capacity Rate} \\ + \text{Fixed O\&M Component}$$

The terms in the above formulas shall have the following meanings as stated:

"Capacity Rate" - Subject to other provisions in this Section 5.1B, the monthly Capacity Rate shall be \$15.43/kW/month.

"Fixed O&M Component" - The Fixed O&M Component shall be \$196,754.16 per month (1995 \$) and shall be escalated annually by the factor of $(\text{GDPIPD}_{\text{CURRENT}}/\text{GDPIPD}_{\text{BASE}})$, as described in "Attachment I."

(1) Calculation of the Monthly Capacity Charge.

The monthly Capacity Charge shall be based on the Firm Capacity of the Facility as determined in accordance with Section 3.2C(22) (minus two (2) MW of capacity during the Phase 2 Period for which there shall be no charge), regardless of the actual level of

dispatch of the Facility; provided that, if, at HELCO's request, the Facility provides additional capacity above the Firm Capacity, the Capacity Charge during such month shall be based on the higher level of capacity requested by HELCO and delivered to HELCO at the Metering Point.

(2) Acceptance Tests.

The Capacity Charge payments under this Section 5.1B, shall begin or be adjusted when the Facility has completed the acceptance tests referred to in Section 3.2C(22) and SELLER declares that the Facility has achieved the Phase 1 In-Service Date or Phase 2 In-Service Date, as the case may be.

(3) Capacity Shortfall; Corrective Period.

In the event the acceptance tests conducted in accordance with Section 3.2C(22) demonstrate that the Facility is unable to provide a Firm Capacity of at least fifty-seven (57) MW at the time of the Phase 2 In-Service Date, the following provisions shall apply:

(a) If the Facility achieves a capacity level of between forty-two (42) MW and fifty-seven (57) MW, the Phase 2 In-Service Date Deadline will be deemed to be met, provided that SELLER shall, during the next twelve (12) months or such shorter period during which the Facility achieves Committed Capacity, if applicable (the "Corrective Period"), use its reasonable best efforts to increase the Facility's capacity level to the Committed Capacity.

(b) During the Corrective Period, the Capacity Rate applicable for such period shall be reduced by one (1) percentage point for each one percent (1%) that such capacity level is below ninety percent (90%) of the Committed Capacity.

(c) If, at the end of the Corrective Period, the Facility has not achieved a Firm Capacity level of at least fifty-four thousand (54,000) kW, (i) the Committed Capacity shall be reset at the Firm Capacity level achieved by the Facility during its most recent Capacity Test conducted pursuant to Section 3.2C(22) and (ii) until the Firm Capacity is revised by a subsequent Capacity Test in accordance with Attachment L, the Capacity Rate shall be reduced by the Corrective Amount to reflect the value of the diminished capacity level; provided however, the Firm Capacity shall not be adjusted after the Corrective Period without HELCO's prior consent. The Corrective Amount shall be calculated as follows:

$$\text{Corrective Amount (in \$/kW/year)} = 150 - 0.0025 \times \text{Firm Capacity (in kW)}$$

So long as the Facility has achieved a capacity level of at least forty-eight thousand (48,000) kW, the foregoing adjustments to the level of Committed Capacity and the Capacity Charge shall be HELCO's sole and exclusive remedy for the Facility's failure to achieve the guaranteed capacity level. If the Facility has not achieved a capacity level of at least forty-eight thousand (48,000) kW after the Corrective Period, then HELCO shall be entitled to all rights and remedies provided hereunder.

C. Hawaii General Excise Tax

HELCO shall not be liable for payment of the applicable Hawaii General Excise Tax levied and assessed against SELLER as a result of this Agreement. The rates and charges in this Article V shall not be adjusted by reason of any subsequent increase or reduction of the applicable Hawaii General Excise Tax, except to the extent such tax applies to other generation units owned by HELCO.

D. No Payment of Emission Fees

HELCO shall not be liable for payment of the applicable air pollutant emission fees imposed by the DoH or U.S. EPA on SELLER as a result of operating or having the potential to operate the Facility.

E. No Payment of Other Taxes or Fees

HELCO shall not be liable for payment of nor reimbursement of any SELLER payment of any new or modified tax or fee imposed by any governmental body, except to the extent such tax applies to other generation units owned by HELCO.

ARTICLE VI - BILLING AND PAYMENT

6.1 Monthly Invoice

As soon as practicable, but not later than the tenth (10th) Business Day of each Calendar Month, HELCO shall provide SELLER with the appropriate data for SELLER to compute the payment due for capacity provided and electricity delivered to HELCO in the preceding Calendar Month as determined in accordance with this Agreement. SELLER shall compute the Capacity Charge for the same Calendar Month and promptly thereafter submit an invoice ("Monthly Invoice") for the Capacity Charge and Energy Charge to be paid to SELLER for the preceding Calendar Month. Each Monthly Invoice shall include SELLER's backup data for the computation of the Capacity Charge and the Energy Charge. Unless and until HELCO designates a different address, the Monthly Invoice shall be delivered to:

Hawaii Electric Light Company, Inc.
1200 Kilauea Avenue
Hilo, Hawaii 96720-4295
Attention: Manager of Production (or such other individual as
HELCO may designate in writing)

6.2 Payment

As soon as practicable, but in no event later than five (5) Business Days following HELCO's receipt of the Monthly Invoice from SELLER, HELCO shall pay, in immediately available funds, such monthly Capacity Charge and Energy Charge payments as computed in Article V, or provide to SELLER an itemized statement of its objections to all or any portion of such Monthly Invoice and pay any undisputed amount. If any Capacity Charge or Energy Charge payments are made more than five (5) Business Days after HELCO's receipt of the related Monthly Invoice, HELCO shall also include interest on such payments, which shall be computed at a rate equal to the Prime Rate plus two (2) percentage points per annum.

6.3 Adjustments

In the event adjustments are required to correct inaccuracies in Monthly Invoices, the party requesting adjustment shall use the method described in Section 3.2E(4), if applicable, to determine the correct measurements, and shall recompute the amounts due during the period of such inaccuracies. Except as noted below, the difference between the amount paid and that recomputed for each Monthly Invoice affected shall be paid, or repaid, with interest from the date that such Monthly Invoice was payable until the date that such recomputed amount is paid at the average daily Prime Rate at the Bank of Hawaii for the period, or objected to by the party responsible for such payment within thirty (30) days following its receipt of such request. All claims for adjustments shall be waived for any deliveries of electricity made more than thirty-six (36) months preceding the date of any such request. Adjustments to correct Monthly Invoices resulting from escalation indices not being published at the time such Monthly Invoices were prepared shall be paid or refunded without interest. The escalation indices initially published by the appropriate governmental or industry body for the period covered by the invoice shall be the indices applied.

6.4 Other Payments

Any amounts due from either party under this Agreement other than monthly Energy Charges and Capacity Charges shall be paid or objected to within thirty (30) days following receipt from either party of an itemized invoice from the other party setting forth, in reasonable detail, the basis for such invoice.

ARTICLE VII - DEFAULT

7.1 Events of Default

A. Default by SELLER

The occurrence of any of the following events at any time during the Term of this Agreement shall constitute an "Event of Default" by SELLER:

(1) By (a) fifteen (15) months after the Phase 1 In-Service Date Deadline or Phase 2 In-Service Date Deadline, respectively and in each case, as extended for Force Majeure, the Facility has not achieved the Phase 1 In-Service Date or Phase 2 In-Service Date, respectively (including satisfaction of all conditions associated therewith in accordance with Section 2.3A(3) and (4)) or (b) thirty-six (36) months after the PUC Approval Date or fifty-four (54) months after the PUC Submittal Date, the Facility has not achieved the Phase 2 In-Service Date: provided, that the Events of Default referred to in this Section 7.1A(1) once triggered shall not be subject to Section 7.2C.

(2) HELCO declares an Event of Default in accordance with Section 2.4A(1).

(3) HELCO declares an Event of Default pursuant to Section 2.3B(1).

(4) SELLER shall fail to pay HELCO any amount as and when due under this Agreement (less any amounts disputed in good faith pursuant to Article XIV) and neither SELLER nor the Financing Parties remedy such non-payment within ten (10) days after written demand therefor by HELCO served upon SELLER with a copy served upon the Financing Parties.

(5) SELLER shall fail to operate, maintain or repair the Facility in accordance with the terms of this Agreement such that a condition exists in the Facility which has an adverse physical impact on HELCO's electrical system or the equipment of HELCO's customers or which HELCO reasonably determines presents an immediate danger to personnel or equipment, and SELLER shall fail to initiate and diligently pursue reasonable action to cure such failure within seven (7) days after actual receipt by SELLER and the Financing Parties of demand therefor by HELCO: provided, that in the event SELLER fails to initiate and diligently pursue reasonable action to cure such failure within such seven (7) day period, HELCO may, after providing written notice to SELLER and Financing Parties, enter upon the Site, and undertake such reasonable action on behalf of SELLER, consistent within Good Engineering and Operating Practices, until either such adverse effect or danger is eliminated or HELCO is reasonably satisfied that SELLER has initiated and is diligently pursuing such reasonable action; and provided, further, that such right, if exercised, shall be HELCO's exclusive remedy for SELLER's failure to act within the period required herein. SELLER shall bear or reimburse HELCO for, as the case may be, for all reasonable, documented, out-of-pocket costs incurred by HELCO in connection with such reasonable actions taken by HELCO on behalf of SELLER as provided herein, and shall cooperate in good faith with HELCO in providing access to the Facility and the Site, in the event HELCO elects to undertake such action as provided herein.

(6) SELLER shall abandon the Facility prior to the Phase 2 In-Service Date or shall fail to maintain continuous service to the extent required by this Agreement when it has the technical capability to do so for a period of seven (7) or more consecutive days, the last twenty-four (24) hours of which shall be after notice by HELCO to SELLER that it is not in compliance with this provision, unless such abandonment or failure is caused by Force Majeure or an Event of Default by HELCO. For purposes of this Section 7.1A(6), (i) abandonment of the Facility during the construction phase shall mean the failure by SELLER, after the PUC Approval Date.

to proceed with or prosecute in a diligent manner the planning, design, engineering, permitting, completion (including, without limitation, purchasing, accounting, training and administration) and start up of the Facility for a consecutive period of thirty (30) days, the last ten (10) days of which shall be after notice from HELCO to SELLER that it is not in compliance with this provision; and (ii) technical capability to maintain continuous service shall mean that the Facility could be operated in a safe manner at that time in accordance with Good Engineering and Operating Practices.

(7) SELLER shall be found by the professional engineering firm retained from the Qualified Independent Engineers List to have failed to initiate and diligently pursue adequate action to comply with such firm's recommendations after proper notification as required by Section 3.3D(1).

(8) SELLER shall fail to meet the performance requirements specified in Section 3.2D(1) or Section 3.2D(2) by more than five (5) percentage points on average in any two (2) full consecutive Contract Years or by more than ten (10) percentage points for any one (1) full Contract Year after the Phase 2 In-Service Date or shall fail to have the capability of supplying upon request of HELCO Dispatch the Firm Capacity specified in Section 3.2D(3) by ten percent (10%) or more for any two (2) full consecutive Contract Years unless such failure is due to a Force Majeure event, a Catastrophic Equipment Failure, or a major outage pre-approved by HELCO pursuant to Section 3.2B(6) as required to prevent a Catastrophic Equipment Failure.

(9) SELLER shall fail to meet the performance requirements specified in Section 3.2D(5) by more than three (3) Unit Trips in each of any two (2) consecutive Contract Years, or the Facility experiences twelve (12) or more Unit Trips in any one (1) full Contract Year after the Phase 2 In-Service Date.

(10) SELLER shall (a) be dissolved, be adjudicated as bankrupt, or become subject to an order for relief under any federal bankruptcy law; (b) fail to pay, or admit in writing its inability to pay, its debts generally as they become due; (c) make a general assignment of substantially all its assets for the benefit of creditors other than to the Financing Parties; (d) apply for, seek, consent to, or acquiesce in the appointment of a receiver, custodian, trustee, examiner, liquidator or similar official for itself or any substantial part of its property; (e) institute any proceedings seeking an order for relief or to adjudicate it as bankrupt or insolvent, or seeking dissolution, winding up, liquidation, reorganization, arrangement, adjustment or composition of it or its debts under any law relating to bankruptcy, insolvency, reorganization or relief of debtors; or (f) take any action to authorize or effect any of the foregoing actions.

(11) Without the application, approval or consent of SELLER, a receiver, trustee, examiner, liquidator or similar official shall be appointed for SELLER, or any part of its property, or a proceeding described in Section 7.1A(10)(e) shall be instituted against SELLER and such appointment shall continue undischarged or such proceeding shall continue undismissed or unstayed for a period of sixty (60) consecutive days or SELLER shall fail to file in a timely manner, an answer or other pleading denying the material allegations filed against it in any such proceeding.

(12) Without the prior written consent of HELCO, SELLER shall transfer, convey, lose or relinquish its right to own the Facility or to occupy the Site to any person, except an entity to whom SELLER may assign this Agreement under Article XVII or Article XIX.

(13) SELLER shall fail to make all reasonable efforts to restore the Facility to full or substantially full operating condition to the extent it is determined, after consultation with HELCO and the Financing Parties following settlement of any casualty loss, to be reasonable to do so and such failure continues for thirty (30) days after written demand therefor by HELCO.

(14) HELCO shall declare an event of default under the Security Documents, which event of default shall not have been cured within the time permitted for such cure therein.

(15) SELLER shall fail to maintain in full force and effect throughout the Term either the Guarantee(s) or a letter of credit or bond in substitution therefor in accordance with the provisions of Article XXI.

(16) The Guarantor(s) or the issuer of the letter of credit or bond provided in substitution for the Guarantee(s) pursuant to Article XXI shall fail to pay to HELCO any amount as to which it has a proper claim, as and when due under such Guarantee(s), letter of credit or bond, respectively, and neither the Guarantor(s), such issuer nor the Financing Parties remedy such non-payment within forty-five (45) days after written demand therefor by HELCO served upon the Guarantor(s) or such issuer, as appropriate, with a copy served upon the Financing Parties.

(17) SELLER shall fail to provide to HELCO in accordance with Article XXI an acceptable letter of credit or bond in substitution for the Guarantee(s) within thirty (30) days after the occurrence, with respect to the Guarantor(s), of any of the events specified in paragraphs (10) or (11) of this Section 7.1A as constituting an Event of Default upon the occurrence thereof with respect to Guarantor(s) instead of SELLER.

(18) SELLER shall fail to comply with an arbitrator's decision under Article XIV within thirty (30) days after such decision becomes binding on the parties in accordance with Section 14.2E or, if such decision cannot be complied with within thirty (30) days, SELLER shall fail to have commenced efforts designed to comply and diligently continued such efforts until compliance is attained.

(19) SELLER shall fail to perform a material obligation of this Agreement not otherwise specifically referred to in this Section 7.1A, which failure has a material adverse effect on SELLER's delivery of capacity and energy to HELCO in accordance with the terms of this Agreement and which failure shall continue for forty-five (45) days after written demand by HELCO for performance thereof.

B. Default by HELCO

The occurrence of any of the following at any time during the Term of this Agreement shall constitute an "Event of Default" by HELCO:

(1) HELCO shall fail to pay SELLER any amount as and when due under this Agreement (less any amounts disputed in good faith pursuant to Section 6.2 or Article XIV) and shall fail to remedy such non-payment within ten (10) days after demand therefor from SELLER.

(2) HELCO shall fail to construct, operate, maintain or repair the Interconnection Facilities for which HELCO is responsible for under the Interconnection Agreement, in accordance with the terms of this Agreement, such that the safety of persons or property, the Facility, SELLER's equipment, or SELLER's entitlement to payments hereunder for capacity or energy is adversely affected, and shall fail to cure such failure within fourteen (14) days after demand therefor from SELLER.

(3) HELCO shall abandon the Interconnection Facilities or shall discontinue purchases of capacity and energy required under this Agreement, unless such discontinuance is caused by reasons of Force Majeure or an Event of Default by SELLER.

(4) HELCO shall (a) be dissolved, be adjudicated as bankrupt, or become subject to an order for relief under any federal bankruptcy law; (b) fail to pay, or admit in writing its inability to pay, its debts generally as they become due; (c) make a general assignment of substantially all its assets for the benefit of creditors, other than to the Trustee under its First Mortgage Indenture dated December 1, 1938, as amended; (d) apply for, seek, consent to, or acquiesce in the appointment of a receiver, custodian, trustee, examiner, liquidator or similar official for itself or any substantial part of its property; (e) institute any proceedings seeking an order for relief or to adjudicate it as bankrupt or insolvent, or seeking dissolution, winding up, liquidation, reorganization, arrangement, adjustment or composition of it or its debts under any law relating to bankruptcy, insolvency, reorganization, or relief of debtors or (f) take any action to authorize or effect any of the foregoing actions.

(5) Without the application, approval or consent of HELCO, a receiver, trustee, examiner, liquidator or similar official shall be appointed for HELCO or any part of its respective property, or a proceeding described in Section 7.1B(4)(e) shall be instituted against HELCO and such appointment shall continue undischarged or such proceeding shall continue undismissed or unstayed for a period of sixty (60) consecutive days or HELCO shall fail to file timely an answer or other pleading denying the material allegations filed against it in any such proceeding.

(6) HELCO shall fail to comply with an arbitrator's decision under Article XIV within thirty (30) days after such decision becomes binding on the parties in accordance with Section 14.2E or, if such decision cannot be complied with within thirty (30) days, HELCO shall fail to have commenced efforts designed to comply and diligently continued such efforts until compliance is attained.

(7) HELCO shall fail to perform a material obligation of this Agreement not otherwise specifically referred to in this Section 7.1B, which failure shall have a material adverse effect on its ability to accept and pay for, or SELLER's ability to deliver, capacity and energy in accordance with the terms of this Agreement and which failure shall continue for forty-five (45) days after written demand by SELLER for performance thereof.

C. Right to Cure Default

(1) Cure Period - An Event of Default shall not be declared or deemed to exist if the defaulting party cures such Event of Default within forty-five (45) days of receipt of notice from the non-defaulting party or, if a cure may not be effected within such forty-five (45) day period, the defaulting party commences its reasonable best efforts to cure such Event of Default during such period and diligently pursues such efforts to completion. This provision shall not apply to an Event of Default under Sections 7.1A(1),(8),(9), (10), (11) or (18) or Sections 7.1B (4), (5) or (6).

(2) Effect of Cure on Event of Default - If an Event of Default occurs (or if conditions exist which would permit HELCO or SELLER to declare an Event of Default) and if such Event of Default (or the conditions which would permit HELCO or SELLER to declare an Event of Default) is cured prior to any invocation of remedies therefor, remedies (other than the payment of damages associated with such Event of Default) for such Event of Default shall not thereafter be invoked.

7.2 Rights and Obligations of the Parties Upon Default

A. Notice of Default

Upon the occurrence of an Event of Default specified in Section 7.1, the non-defaulting party shall deliver to the defaulting party (with a copy to the Financing Parties and/or the collateral agent designated therefor) a written notice which (i) declares that an Event of Default has occurred under Section 7.1 of this Agreement; and (ii) identifies the specific provision or provisions of such Section under which such Event of Default shall have occurred.

B. Right to Terminate

If an Event of Default under Section 7.1 shall have occurred and not been cured within the cure periods provided in Section 7.1C, or, as to Events of Default under Sections 7.1A(8) or (9) pursuant to the remedial provisions described therein, or such other cure periods provided under the Financing Documents to which HELCO is a party, as applicable, the non-defaulting party shall have the right to terminate this Agreement by delivering a written notice of termination which shall be effective thirty (30) days from the date such notice is delivered; provided, that if such notice of termination is not given within thirty (30) days of the date such right to terminate is triggered, such termination shall not be effective.

C. Right to Demand Independent Engineering Assessment and Modification

(1) If an Event of Default described in Section 7.1A(8) or (9) occurs, HELCO shall, prior to exercising its rights under Section 7.2A or Section 7.2B on the basis thereof, give written notice to SELLER that it will obtain an Independent Engineering Assessment concerning the failure to meet the specified warranted levels. Within thirty (30) days after receipt by SELLER of such notice, a president, vice president, or other authorized delegate of HELCO and SELLER, both having full authority to settle the matter, shall personally meet in Hawaii and attempt in good faith to make the determination described in Section 7.2C(2). If these officials reach agreement on a determination, the provisions of 7.2C(3) and (4) shall apply thereto. If no meeting takes place within thirty (30) days of SELLER's receipt of the aforesaid written notice, or if agreement between these officials is not reached within forty-five (45) days of SELLER's receipt of such notice, HELCO may at any time thereafter require that an Independent Engineering Assessment be conducted in accordance with Section 3.3D except that in every instance all costs of such Independent Engineering Assessment shall be borne by SELLER.

(2) The representatives of the parties or the Qualified Independent Engineer based on the Independent Engineering Assessment, as applicable, shall determine whether there are commercially reasonable changes in the Facility, or in the manner in which SELLER operates the Facility, which (i) could be implemented within two hundred and seventy (270) days (or such other time period which HELCO and SELLER mutually agree upon) after the Qualified Independent Engineer's or the representatives' decision, and (ii) could reasonably be expected to result in future operation of the Facility in each Contract Year at the following levels:

(a) An EAF not less than ninety percent (90%) computed in accordance with Section 3.2D(1);

(b) An EFOR not to exceed four percent (4%) computed in accordance with Section 3.2D(2);

(c) The Facility shall have the capability, within Good Engineering and Operating Practices and within the design limitations of the Facility equipment, of producing not less than ninety percent (90%) of the Firm Capacity; or

(d) No more than six (6) Unit Trips in any Contract Year.

(3) If the representatives of the parties or the Qualified Independent Engineer based on the Independent Engineering Assessment, as applicable, determine that there are no commercially reasonable changes meeting the requirements of paragraph (2) above, HELCO may thereafter declare an Event of Default on the basis of the failure described in Section 7.1A(8) or (9) which preceded HELCO's request for an Independent Engineering Assessment.

(4) If the representatives of the parties or the Qualified Independent Engineer based on the Independent Engineering Assessment, as applicable, determine that there are

commercially reasonable changes meeting the requirements of paragraph (2) above, HELCO may not declare an Event of Default on the basis of the failure described in Section 7.1A(8) or (9) which preceded HELCO's request for an Independent Engineering Assessment unless SELLER either (i) fails to diligently carry out such recommended changes as determined in accordance with the procedures and requirements set forth in Section 3.3D or (ii) implements such changes but the Facility nevertheless does not meet the standards of Section 7.2C(2) in the first full Contract Year after such changes are implemented; provided that, if such right to declare an Event of Default is not exercised within three (3) months after such first full Contract Year, HELCO shall be deemed to have waived such right.

(5) The remedies provided in this Section 7.2C shall be HELCO's sole and exclusive remedy pending the determinations set forth herein and, if applicable, implementation of changes to the Facility as prescribed herein.

D. Other Rights Upon Default

Upon the occurrence of an Event of Default by either party, the non-defaulting party, subject to the rights described in Sections 7.1C, 7.2B, 7.2C and Article XIV of this Agreement, may exercise, at its election, any rights and claim and obtain any remedies it may have at law or in equity, including, but not limited to, compensation for monetary damages, injunctive relief and specific performance.

ARTICLE VIII - LIQUIDATED DAMAGES FOR FAILURE
TO ATTAIN WARRANTED PERFORMANCE; BONUSES

Recognizing that HELCO must provide the ultimate service to its customers and that the capacity and energy produced by the Facility is needed to meet the requirements of HELCO's customers, and in order to avoid the difficulties of proof in connection with the damages HELCO would incur in the event of a failure of the Facility to meet the performance standards herein, the parties agree that the following Liquidated Damages for failure by SELLER to attain warranted performance (1) constitute a reasonable and good faith pre-estimate of the anticipated or actual loss or damage which would be incurred by HELCO as a result of such failure, (2) are not intended as a penalty, (3) may be invoked by HELCO to ensure that the Facility meets the performance standards established under this Agreement and (4) constitute HELCO's sole and exclusive remedy, except as otherwise specifically provided in Article VII.

8.1 Liquidated Damages

A. Equivalent Availability Factor

For each one-tenth (1/10) of a percentage point that the Equivalent Availability Factor falls below the guaranteed level specified in Section 3.2D(1) on average for the current Contract Year and previous Contract Year (minimum twenty-four (24) month continuous period is to be used) down to ten (10) percentage points below such guaranteed level, SELLER shall pay to HELCO

Liquidated Damages in the amount set forth in the following table (on a progressive basis) upon proper demand at the end of the current Contract Year in accordance with Section 8.2.

Amount Below Guaranteed Level

0% - 4.9%	\$ 7,500 (1998 \$) per 0.1%
5.0% - 9.9%	\$10,000 (1998 \$) per next 0.1% and thereafter until 10.0%

For each one-tenth (1/10) of a percentage point that the Equivalent Availability Factor of the Facility falls ten (10) percentage points or more below the guaranteed level specified in Section 3.2D(1) on average for the current Contract Year and previous Contract Year (minimum twenty-four (24) month continuous period is to be used) down to fifteen (15) percentage points below such guaranteed level, SELLER shall deposit in the Maintenance Account Twelve Thousand Dollars (\$12,000) (1998 \$) in accordance with Section 8.3.

B. Equivalent Forced Outage Rate

For each one-tenth (1/10th) of a percentage point that the EFOR exceeds the guaranteed level in Section 3.2D(2) on average for the current Contract Year and the previous Contract Year (minimum twenty-four (24) month continuous period is to be used) up to ten percent (10%) above such guaranteed level, SELLER shall pay HELCO Liquidated Damages in the amount set forth in the following table (on a progressive basis) upon proper demand at the end of the current Contract Year, in accordance with Section 8.2.

Amount Above Guaranteed Level

0% - 4.9%	\$3,000 (1998 \$) per 0.1%
5.0% - 9.9%	\$4,000 (1998 \$) per next 0.1% and thereafter until 10.0%

For each one-tenth (1/10) of a percentage point that EFOR exceeds by ten (10) percentage points or more the guaranteed level specified in Section 3.2D(1) on average for the current Contract Year and previous Contract Year (minimum twenty-four (24) month continuous period is to be used) up to fifteen (15) percentage points above such guaranteed level, SELLER shall deposit in the Maintenance Account Five Thousand Dollars (\$5,000) (1998 \$) in accordance with Section 8.3.

C. Ramp Derating Penalty

The parties acknowledge and agree that it is essential that the Facility has the capability to ramp both upwards and downwards at the ramp rates specified in Section 3.2C(25). In the event the Facility cannot achieve these ramp rates in accordance with Section 3.3A(2), SELLER shall pay Liquidated Damages for the ramp derating in the month following the derating in accordance with the following formula as illustrated in "Attachment K":

$$\$0.01981/\text{kWh} \times \text{Ramp Derating (kWh)}$$

This Liquidated Damage computation shall apply to the total period in which the derating persists; provided that, SELLER's liability under this Section 8.1C shall be subject to the limits set forth in Section 3.3A(2).

D. Excessive Unit Trips

For each Unit Trip in excess of the limit set forth in Section 3.2D(5) on average for the current Contract Year and the previous Contract Year (minimum twenty-four (24) month continuous period is to be used), SELLER shall pay HELCO Liquidated Damages in the amount set forth in the following table (on a progressive basis) upon proper demand at the end of the current Contract Year, in accordance with Section 8.2:

<u>Excessive Unit Trips</u>	
1 - 3 unit trips	\$5,000 per trip
4 - 7 unit trips	\$7,500 per next trip
8 or more unit trips	\$10,000 per next trip

8.2 Payment of Liquidated Damages

SELLER shall pay the aggregate amount of Liquidated Damages for each Contract Year within thirty (30) days after such Contract Year; provided that, at SELLER's option, SELLER may pay such amount in one-twelfth (1/12) increments per Calendar Month during the following Contract Year, along with a carrying charge on the balance of such amount computed at the Prime Rate plus three percent (3%) per annum. In the event SELLER fails to pay HELCO undisputed amounts of Liquidated Damages due under this Section 8.2 within thirty (30) days of receipt of HELCO's written demand, HELCO shall be entitled to seek payment under the Guarantee(s), or any replacement security provided in accordance with Article XXI, and, to the extent SELLER's obligations to pay undisputed Liquidated Damages are not fulfilled thereafter, HELCO may offset such undisputed amounts due against payments it is otherwise obligated to make under this Agreement.

8.3 Maintenance Account.

SELLER shall establish an escrow account (the "Maintenance Account") to be held by a Financing Party or other entity approved by the Financing Parties. SELLER shall deposit monies in the Maintenance Account in accordance with Sections 3.3A(2), 8.1 and this Section 8.3. The aggregate amount, if any, required pursuant to Sections 3.3A(2) and 8.1 for each Contract Year, shall be deposited by SELLER into the Maintenance Account within thirty (30) days after such Contract Year. Notwithstanding anything to the contrary in Section 8.1 or in this Section 8.3, the amount held in the Maintenance Account shall not exceed Four Million Dollars (\$4,000,000) (1998 \$) at any time and SELLER shall not be required to deposit any monies to the Maintenance Account to the extent such deposit shall cause the amount held therein to exceed Four Million Dollars (\$4,000,000) (1998 \$).

Amounts held in the Maintenance Account shall be dedicated solely to fund maintenance, modification or repairs to the Facility on an expedited basis which are reasonably necessary to bring EAF or EFOR within guaranteed levels, to cure any problems giving rise to a ramp derating pursuant to Section 3.3A(2) or to otherwise enhance the Facility's ability to meet the performance standards in Section 3.2D of this Agreement; provided, however, SELLER shall be entitled to withdraw all amounts held therein upon the earlier of (i) once the EAF and EFOR levels are brought within such guaranteed levels for a period of two (2) consecutive years and any problems giving rise to a ramp derating are cured, or (ii) termination of this Agreement. Amounts held in the Maintenance Account shall be invested pursuant to SELLER's instructions.

SELLER shall be entitled to draw against the Maintenance Account upon presentation of an officer's certificate, signed by the president, vice-president, or other authorized delegate of SELLER, stating:

- (a) the amount required to be disbursed;
- (b) the person to which the disbursement is to be paid; and
- (c) either (i) that the disbursement is to fund maintenance, modification or repairs to the Facility reasonably necessary to bring EAF or EFOR, as the case may be, within guaranteed levels, to cure problems giving rise to a ramp derating or to otherwise enhance the Facility's ability to meet in the performance standards in Section 3.2D of this Agreement and that no portion of the amount then being requested to be disbursed has been set forth in any previous certificate requesting disbursement; (ii) that the EAF or EFOR level, as the case may be, has been within guaranteed levels for a period of two (2) consecutive years and that any problems giving rise to a ramp derating have been cured; or (iii) that this Agreement has been terminated.

Upon receipt of such certificate, the Financing Party or other entity holding the Maintenance Account shall disburse the amount set forth in (a) above to SELLER.

8.4 Adjustments

All of the dollar values noted in Sections 8.1A, 8.1B and 8.3 will be adjusted each Contract Year in accordance with "Attachment I."

ARTICLE IX - HELCO'S INSPECTION OF FACILITY OPERATION AND USE OF FACILITY SITE; OPTION FOR SITE REPRESENTATIVE

9.1 Inspection of Facility Operation

SELLER shall permit HELCO, its employees and agents (including but not limited to affiliates and contractors and their employees) to enter upon and inspect the Facility and SELLER's construction, operation and maintenance thereof from time to time, upon reasonable prior notice, provided that such inspections shall not interfere with SELLER's operation of the Facility and do not occur more than four (4) times per year; provided further that to the extent

there exists a major operating problem with the Facility, HELCO shall be permitted to enter upon and inspect the Facility without regard to the four (4) times per year limitation. HELCO shall also be entitled to conduct non-intrusive site visits to the Facility personnel at the Site; provided that such visits shall not occur more than once a month.

If HELCO observes a condition during such inspections which it has reasonable cause to believe may have an adverse impact on SELLER's ability to fulfill its obligations under this Agreement, HELCO may make a written request for and SELLER shall provide a written report on such condition within thirty (30) days. HELCO's inspection of SELLER's equipment or operation shall not be construed as endorsing the design thereof nor as any warranty of the safety or reliability of said equipment or operation nor as a waiver of any right by HELCO.

9.2 Entry for Work On Site

SELLER shall permit HELCO, its employees and agents (including but not limited to affiliates and contractors and their employees) to enter upon the Site, with such prior notice as is reasonable under the circumstances, to take such action as may be necessary in the reasonable opinion of HELCO to: (A) maintain, inspect, read and test meters and other HELCO equipment pursuant to Section 3.2E, (B) to interconnect, interrupt, monitor or measure electrical generation produced at the Facility in accordance with the terms of this Agreement, and (C) to exercise any other rights HELCO may have under this Agreement.

9.3 Provision of Site Space

SELLER shall provide without charge suitable space on the Site for all HELCO equipment to be placed on the Site under this Agreement. Suitable space as used herein means space appropriate for the intended use with adequate electric power, air conditioning, telecommunication wiring, security, and other necessary building services. In addition, SELLER shall provide a means for reasonable access by HELCO to the Site, also without charge to HELCO. If HELCO exercises its rights to have a Site Rep under Section 9.5, SELLER will provide suitable office space at the Site for such Site Rep.

9.4 No Ownership Interest

Neither SELLER nor any Financing Party shall acquire any ownership interest or security interest in or lien or mortgage on any equipment installed, owned, and maintained at the Site by HELCO pursuant to this Agreement, and HELCO shall have a reasonable time after termination of this Agreement in which to remove such equipment.

9.5 HELCO Site Representative Option

If HELCO reasonably believes, based on its review of the Facility's operating records and the Facility's actual failure to perform in accordance with the terms of this Agreement over a six (6) month period, that the Facility is not being operated in accordance with this Agreement, HELCO may, following ten (10) days' written notice to SELLER thereof, have a Site

Representative ("Site Rep") observe Facility operations continuously for a period of up to thirty (30) days. During this period, the Site Rep shall have access at all reasonable times to any and all operational areas of the Facility. SELLER shall comply with any reasonable request of the Site Rep for information concerning the operation (including fueling) and maintenance of the Facility. The Site Rep shall not adversely impact SELLER's operations and shall comply with SELLER's safety and related standards and conditions. HELCO shall be liable for any negligent actions or willful misconduct of the Site Rep that results in any injury or damage to any person (including the Site Rep), real property or personal property at or immediately adjacent to the Site, or adversely impacts SELLER's ability to operate the Facility.

ARTICLE X - AUDIT RIGHTS

10.1 Rights of HELCO

HELCO shall have the right throughout the Term and for a period of three (3) years following the end of the Term, as extended, upon reasonable prior notice, to audit the books and records of SELLER to the limited extent necessary to verify the basis for any claim by SELLER for payments from HELCO. HELCO shall not have the right to audit other financial records of SELLER. SELLER shall make such records available at its offices in Hawaii during normal business hours. HELCO shall pay SELLER's reasonable costs for such audits, including allocated overhead.

10.2 Rights of SELLER

SELLER shall have the right throughout the Term and for a period of three (3) years following the end of the Term, as extended, upon reasonable prior notice, to audit the books and records of HELCO to the limited extent necessary to verify the basis for charges invoiced by HELCO to SELLER under this Agreement. SELLER shall not have the right to audit other financial records of HELCO. HELCO shall make such information available during normal business hours at its offices in Hawaii. SELLER shall pay HELCO's reasonable costs for such audits, including allocated overhead.

ARTICLE XI - INDEMNIFICATION

11.1 Indemnification of HELCO

A. SELLER shall indemnify, defend, and hold harmless HELCO, its successors, permitted assigns, affiliates, controlling persons, directors, officers, employees, servants and agents, including but not limited to contractors and their employees (collectively referred to as an "Indemnified HELCO Party"), from and against any and all third party claims, demands, obligations, liabilities (including, without limitation, liabilities arising out of the doctrine of strict liability), losses, damages, penalties, fines, actions, suits, judgments, costs, expenses and disbursements (including without limitation, reasonable attorneys' fees and expenses) and

proceedings of any nature whatsoever for personal injury or death or damage to property, whether or not well founded, meritorious or unmeritorious, demanded, asserted or claimed against, imposed on, or incurred by an Indemnified HELCO Party in any way relating to or arising out of the performance by SELLER or its agents or subcontractors of this Agreement, except to the extent that any of the foregoing is attributable to the negligence or intentional action of an Indemnified HELCO Party or a failure of HELCO to comply with Section 3.1B.

B. Any fines or other penalties incurred by an Indemnified SELLER Party (as defined in Section 11.2A) for noncompliance by SELLER or an Indemnified SELLER Party with laws, rules, regulations, orders or other governmental actions referred to in Section 3.2I shall not be reimbursed by HELCO but shall be the sole responsibility of SELLER. SELLER shall indemnify, defend and hold harmless each Indemnified HELCO Party from and against any and all liabilities, damages, losses, penalties, claims, demands, suits, costs, expenses, disbursements (including attorney's fees) and proceedings of any nature whatsoever suffered or incurred because of the failure of SELLER to comply with any of the laws, rules, regulations, orders or other governmental actions referred to in Section 3.2I.

C. If SELLER shall obtain knowledge of any claim indemnified against under Section 11.1A or otherwise under this Agreement, SELLER shall give prompt notice thereof to HELCO, and if HELCO shall obtain any such knowledge, HELCO shall give prompt notice thereof to SELLER.

D. In case any action, suit or proceeding shall be brought against an Indemnified HELCO Party, HELCO shall notify SELLER of the commencement thereof and, provided that it has acknowledged in writing to HELCO its obligation to an Indemnified HELCO Party under this Article XI, SELLER shall be entitled, at its own expense, acting through counsel acceptable to HELCO, to participate in and, to the extent that SELLER desires, to assume and control the defense thereof; provided, however, that SELLER shall not be entitled to assume and control the defense of any such action, suit or proceeding if and to the extent that, in the opinion of HELCO, such action, suit or proceeding involves the potential imposition of criminal liability on an Indemnified HELCO Party or a conflict of interest between an Indemnified HELCO Party and SELLER. HELCO shall be entitled, at its own expense, acting through counsel acceptable to SELLER to participate in any action, suit or proceeding, the defense of which has been assumed by SELLER. HELCO shall supply SELLER with such information and documents requested by SELLER as are necessary or advisable for SELLER to possess in connection with its participation in any action, suit or proceeding to the extent permitted by this Section 11.1D. An Indemnified HELCO Party shall not enter into any settlement or other compromise with respect to any claim without the prior written consent of SELLER, which consent shall not be unreasonably withheld or delayed.

E. Upon payment of any claim by SELLER pursuant to Section 11.1D or other similar indemnity provisions contained herein to or on behalf of HELCO, SELLER, without any further action, shall be subrogated to any and all claims that an Indemnified HELCO Party may have relating thereto, and HELCO shall cooperate with SELLER and give such further assurances as are necessary or advisable to enable SELLER vigorously to pursue such claims.

11.2 Indemnification of SELLER

A. HELCO shall indemnify, defend, and hold harmless SELLER, its successors, permitted assigns, affiliates, controlling persons, directors, officers, employees, servants and agents, including but not limited to contractors and their employees (collectively referred to as an "Indemnified SELLER Party"), from and against any and all third party claims, demands, obligations, liabilities (including, without limitation, liabilities arising out of the doctrine of strict liability), losses, damages, penalties, fines, actions, suits, judgments, costs, expenses and disbursements (including reasonable attorneys' fees and expenses) and proceedings of any nature whatsoever for personal injury or death or damage to property, whether or not well founded, meritorious or unmeritorious, demanded, asserted or claimed against, imposed upon, or incurred by an Indemnified SELLER Party in any way relating to or arising out of the performance by HELCO of its obligations under this Agreement, except to the extent that any of the foregoing is attributable to the negligence or intentional action of an Indemnified SELLER Party or a failure of SELLER to comply with Section 3.1B.

B. If HELCO shall obtain knowledge of any claim indemnified against under Section 11.2A or otherwise under this Agreement, HELCO shall give prompt notice thereof to SELLER, and if SELLER shall obtain any such knowledge, SELLER shall give prompt notice thereof to HELCO.

C. In case any action, suit or proceeding shall be brought against an Indemnified SELLER Party, SELLER shall notify HELCO of the commencement thereof and, provided that it has acknowledged in writing to SELLER its obligation to an Indemnified SELLER Party under this Article XI, HELCO shall be entitled, at its own expense, acting through counsel acceptable to SELLER, to participate in and, to the extent that HELCO desires, to assume and control the defense thereof; provided, however, that HELCO shall not be entitled to assume and control the defense of any such action, suit or proceeding if and to the extent that, in the opinion of SELLER, such action, suit or proceeding involves the potential imposition of criminal liability on an Indemnified SELLER Party or a conflict of interest between an Indemnified SELLER Party and HELCO. SELLER shall be entitled, at its own expense, acting through counsel acceptable to HELCO, to participate in any action, suit or proceeding the defense of which has been assumed by HELCO. An Indemnified SELLER Party shall supply HELCO with such information and documents requested by HELCO as are necessary or advisable for HELCO to possess in connection with its participation in any action, suit or proceeding, to the extent permitted by this Section 11.2C. An Indemnified SELLER Party shall not enter into any settlement or other compromise with respect to any claim without the prior written consent of HELCO, which consent shall not be unreasonably withheld or delayed.

D. Upon payment of any claim by HELCO pursuant to Section 11.2C or other similar indemnity provisions contained herein to or on behalf of SELLER, HELCO, without any further action, shall be subrogated to any and all claims that an Indemnified SELLER Party may have relating thereto, and SELLER shall cooperate with HELCO and give such further assurances as are necessary or advisable to enable HELCO vigorously to pursue such claims.

ARTICLE XII - CONSEQUENTIAL DAMAGES

Neither SELLER nor HELCO shall be liable to the other party for any indirect, consequential, incidental, punitive or exemplary damages.

ARTICLE XIII - INSURANCE

13.1 Required Coverage

SELLER shall, at its own expense, acquire and maintain, or cause to be maintained, commencing with the start of construction, as applicable, and continuing throughout the Term, as applicable, the minimum insurance coverage set forth in "Attachment J," which SELLER and/or the Financing Parties reasonably determine, after consultation with HELCO, to be necessary during construction and operation of the Facility, as long as such coverage is available to SELLER on commercially reasonable terms.

13.2 Additional Insureds

The insurance policies specified in Sections (b), (c), (d), (e) and (g) (if applicable) of "Attachment J" shall include HELCO as an additional insured, as its interest may appear, with respect to any and all third party bodily injury and/or property damage claims arising from SELLER's performance of this Agreement and, to the extent permitted by such insurers after reasonable efforts of SELLER to obtain such notice, shall require at least thirty (30) days written notice to HELCO prior to cancellation of, or material modification to such policy and ten (10) days written notice to HELCO of cancellation due to failure by SELLER to pay such premium. HELCO acknowledges that Financing Parties shall be entitled to receive and distribute any and all loss proceeds as stipulated by any Financing Documents related to any policy described in this Article XIII and Attachment J.

13.3 Evidence of Policies Provided to HELCO

Evidence of insurance for the coverage specified in this Article XIII shall be provided to HELCO within thirty (30) days after SELLER has obtained a copy of the related policies or by the date specified in Section 2.3A, whichever is later. During the Term, SELLER, upon HELCO's reasonable request, shall make available to HELCO for its inspection at SELLER's designated location, certified copies of the insurance policies described in this Article XIII.

13.4 Deductibles

HELCO acknowledges that any policy required herein may contain reasonable deductibles or self-insured retentions, the amounts of which are solely within the discretion of SELLER and/or the Financing Parties.

ARTICLE XIV - DISPUTE RESOLUTION

14.1 Good Faith Negotiations

Before any dispute under this Agreement is subjected to the provisions of Section 14.2 or any litigation, the presidents, vice presidents, or authorized delegates from both SELLER and HELCO, each having full authority to settle the dispute, shall personally meet in Hawaii and attempt in good faith to resolve the dispute.

14.2 Dispute Resolution Procedures

If the parties are unable to resolve any dispute under this Agreement under the procedures of Section 14.1, such dispute shall be resolved in Hawaii by binding arbitration in accordance with the requirements of this Section 14.2; provided that, this agreement to arbitrate shall be specifically enforceable and this Article XIV shall not preclude either party from pursuing its equitable remedies, including without limitation, seeking injunctive relief.

A. Initiation of Arbitration

Subject to Section 14.1, either party shall give to the other written notice in sufficient detail of the existence and nature of any dispute proposed to be arbitrated under this Section 14.2 and the remedy sought as well as a detailed statement of its contentions of law and fact. Such notice shall be made within a reasonable time after the dispute in question arose, and in no event shall such notice be made after the date when institution of legal or equitable proceedings based on such dispute would be barred by the applicable statute of limitations but for this Article XIV. Such notice will be signed by the president of the party issuing the notice and be delivered to the president of the other party. The other party shall file an answering statement within twenty (20) days of receipt of the notice. After the answering statement is filed, the parties shall diligently negotiate in good faith for a period of sixty (60) days.

B. Appointment of Arbitrator

If the dispute is not resolved through the negotiations required by Section 14.2A, the parties shall attempt to agree on a person with special knowledge and expertise with respect to the design, construction and operation of electric generating facilities to serve as an arbitrator panel of one. If the parties cannot agree on an arbitrator within twenty (20) days after the negotiation period required by Section 14.2A, each party shall within five (5) days, appoint one person to serve as an arbitrator and the two arbitrators thus appointed shall select a third arbitrator to serve as chairman of the panel of arbitrators; and such three arbitrators shall determine all matters by majority vote; provided, however, if the two arbitrators appointed by the parties are unable to agree upon the appointment of the third arbitrator within twenty (20) days after their appointment, both shall give written notice of such failure to agree to the parties and, if the parties fail to agree upon the selection of such third arbitrator within twenty (20) days

thereafter, then either of the parties upon written notice to the other may require such appointment from and pursuant to the rules for commercial arbitration of the American Arbitration Association. In selecting arbitrators under this Section 14.2B, the parties shall give preference to qualified Hawaiian domiciliaries.

Each arbitrator appointed pursuant to this Section 14.2B shall swear to conduct such arbitration in accordance with the terms of this Section 14.2, the laws of the State of Hawaii, and the Code of Ethics of the American Arbitration Association. Each arbitrator who would be disqualified for any reason that would disqualify a judge under the Code of Judicial Conduct shall immediately resign or be withdrawn as an arbitrator. The arbitration panel may choose legal counsel to advise it on the remedies it may grant, procedures and such other legal issues as the panel deems appropriate. Copies of the notice, the statement of contentions of law and fact, the answering statement and this Agreement shall promptly be furnished by the initiating party to the arbitrator(s) selected.

C. Arbitration Procedures

(1) The parties shall have one hundred and twenty (120) days from the date of the formation of the arbitration panel to perform discovery and present evidence and argument to the arbitrators. During this period, the arbitrators shall be available to receive and consider all such evidence as is relevant, within reasonable limits due to the restricted time period, and to hear as much argument as is feasible, giving a fair allocation of time to each party to the arbitration. This period may be extended for sufficient cause by the arbitration panel or by agreement of the parties. The arbitration panel shall have the general powers of a court and may *proceed in accordance with established rules of evidence and procedure, liberally construed* to promote justice and expeditious resolution of the dispute. The arbitration panel shall have complete discretion over the mode and order of discovery, presentment of evidence, and the conduct of the hearing. The arbitrators shall not consider any evidence or argument not presented during such period. To the extent not in conflict with the procedures set forth in Section 14.2, such arbitration shall be held in accordance with Hawaii Revised Statutes, Chapter 658, and the prevailing rules of the American Arbitration Association for commercial arbitration.

(2) The arbitrators shall use all reasonable means to expedite discovery and to sanction non-compliance with reasonable discovery requests or any discovery order. SELLER and HELCO, as the case may be, shall require and warrant that each of their officers, directors, agents, employees, representatives, contractors, partners, general partners, limited partners, and all entities that are the direct or indirect parents or subsidiaries of or an entity affiliated or related by ownership, in whole or part, with or to SELLER or HELCO, as the case may be, its partners, general partners, or limited partners, submit to the jurisdiction of any arbitration panel appointed pursuant to Article XIV and shall respond to all reasonable discovery requests without challenging or objecting to the jurisdiction of such arbitration panel, the location of the arbitration, or other grounds related in any way to separateness of entities, a lack of privity with HELCO, or their lack of status as a party to this Agreement or such arbitration. All documents

and deponents made available in response to reasonable discovery requests shall be made available in Hilo, Hawaii.

(3) At the conclusion of such one hundred and twenty (120) day period, as extended pursuant to Section 14.2C(1), the arbitrators shall have thirty (30) days to reach a determination and to give a written decision to the parties, stating their findings of fact, conclusions of law and final order.

(4) Pending resolution of disputes pursuant to this Article XIV, which disputes relate to or impact SELLER's construction schedule for the Facility, all applicable deadlines and cure periods under this Agreement shall be extended on a day-for-day basis.

D. Arbitrator Limitations

The arbitrators shall have authority to interpret and apply the terms and conditions of this Agreement and to order any remedy allowed by this Agreement, but may not change any term or condition of this Agreement, deprive either party of a remedy expressly provided hereunder, or provide any right or remedy that has been excluded hereunder.

E. Decision Binding on the Parties

The decision of the arbitrators shall be binding on the parties at such time as the decision is confirmed by order of a court of competent jurisdiction pursuant to Chapter 658, Hawaii Revised Statutes.

F. Cost of Arbitration

The arbitrators in rendering their decision shall also state which party prevailed over the other party, or that neither party prevailed over the other. The costs of arbitration (including the attorney fees and costs of the parties and legal counsel appointed pursuant to Section 14.2B) will be borne by the party which is not the prevailing party. In the event neither party prevails, the parties shall each pay fifty percent (50%) of the cost of the arbitration, arbitrator/chair of the panel, and any legal counsel appointed pursuant to Section 14.2B. Also, in the event neither party prevails, the parties each shall bear their own costs, including attorney fees, and those of the arbitrator they appointed to the panel of three arbitrators.

ARTICLE XV - FORCE MAJEURE

15.1 Definition

Force Majeure shall mean any storm, hail, flood, lightning, earthquake, tsunami, volcanic eruption, or other natural disaster, fire and/or explosion, civil disturbance, labor disputes or strikes, act of a public enemy, sabotage, war, national emergency or riot, action, inaction, or restraint by any court or public authority (including denial or failure to grant required permits,

licenses, or other authorizations despite timely efforts to obtain same), inability to obtain required fuel or water for the Facility on reasonable terms despite reasonable efforts to do so, and changes in applicable United States, Hawaii, or local environmental, permitting, zoning, land use, or labor laws, regulations, or ordinances from those in effect on the Execution Date, Catastrophic Equipment Failure, mechanical or equipment breakdown caused by any of the foregoing Force Majeure events, or any other cause beyond the reasonable control of the party relying on such cause to excuse its performance hereunder to the extent to which such party cannot remedy the problem by exercise of due diligence, including, but not limited to, the expenditure of all reasonable sums of money. For purposes of this Section 15.1, Force Majeure shall include delays in the issuance of SELLER's permits, including without limitation, the PSD Permit, beyond the issuance date set forth on Attachment Q, except to the extent such delay beyond the expected issuance date is the result of SELLER's fault or negligence.

Notwithstanding the foregoing, however, Force Majeure does not include any labor dispute or strike involving operating personnel in excess of seventy-two (72) hours after the Phase 2 In-Service Date (except that if such labor dispute or strike continues for more than fourteen (14) days thereafter, such labor dispute or strike shall constitute a Force Majeure event).

15.2 Notice of Force Majeure

A party which desires to claim an event of Force Majeure has occurred which excuses its obligations under this Agreement shall promptly, upon learning of such event and ascertaining that it will affect its performance hereunder, give written notice to the other party, stating the nature of the event, its anticipated duration and any action being taken to avoid or minimize its effect. The burden of proof shall be on the party claiming Force Majeure pursuant to this Article XV.

15.3 Excuse of Obligation; Extension of Milestone Dates and In-Service Date Deadlines

Any obligation of either party under this Agreement shall be excused only to the extent and for the period that such party's inability to perform is caused by one (1) or more Force Majeure events. The party so excused shall make all reasonable efforts, including all reasonable expenditures of necessary funds, to cure, mitigate or remedy such Force Majeure event. Any payments due as compensation for the obligation so excused shall also be excused for so long as the obligation is not performed due to Force Majeure.

During the occurrence of one (1) or more Force Majeure events, each Milestone Date, In-Service Date Deadline and related dates or other applicable deadline in this Agreement shall be extended on a day-for-day basis until the end of such Force Majeure event; provided, however, in no event shall Force Majeure extend any Milestone Date or In-Service Date Deadline for more than nine (9) months in the case of a single Force Majeure event, or twelve (12) months in the case of more than one (1) Force Majeure event.

15.4 Right to Terminate Due to Force Majeure or Catastrophic Equipment Failure

Notwithstanding any other provision of this Agreement, if a party is prevented from substantially performing its obligations under this Agreement by natural disaster, other Force Majeure or Catastrophic Equipment Failure for a period of twenty-four (24) consecutive months, the other party may terminate the Agreement without further liability of either party to the other hereunder. Such termination shall be effective upon ninety (90) days written notice to the other party and the Financing Parties prior to the resumption of substantial performance; provided, however, that if substantial performance is resumed during such ninety (90) day period, such termination shall not be effective.

15.5 Obligations Remaining After Event of Force Majeure

No monetary obligations of either party which arose before the occurrence of an event of Force Majeure causing the suspension of performance shall be excused as a result of such occurrence. The obligation to pay in a timely manner any payments owed pursuant to Article V, and any other money for obligations and liabilities which matured prior to the occurrence of an event of Force Majeure is absolute and shall not be subject to the Force Majeure provisions. In the event of a SELLER Force Majeure which reduces or limits the Facility's capability to deliver capacity and/or energy, HELCO shall be obligated to pay for capacity and/or energy only to the extent such capacity and/or energy is made available by SELLER. In the event of a HELCO Force Majeure which reduces or limits HELCO's capability to purchase energy, HELCO shall pay for such reduced energy as it may accept, but shall remain obligated to pay for capacity made available by SELLER in accordance with this Agreement.

15.6 Extension of Term

If a Force Majeure event occurs after the Phase 2 In-Service Date, the Term shall be extended on a day-for-day basis for the duration of such Force Majeure event.

ARTICLE XVI - ELECTRIC SERVICE SUPPLIED BY HELCO

This Agreement does not provide for any electric services by HELCO to SELLER. If SELLER requires any electric services from HELCO, HELCO shall provide such service on a non-discriminatory basis in accordance with HELCO's Schedule "J" tariff, a copy of which is attached as Attachment S, or successors thereof.

ARTICLE XVII - ASSIGNMENT

17.1 Assignment by SELLER

This Agreement shall not be assignable by SELLER without the prior written consent of HELCO (which consent shall not be unreasonably withheld); provided that SELLER may.

without the consent of HELCO, assign this Agreement (A) as required by the Financing Parties or otherwise in connection with Financing Documents or (B) to an affiliate, a wholly-owned subsidiary or a successor of SELLER.

17.2 Assignment by HELCO

This Agreement shall not be assignable by HELCO without the prior written consent of SELLER (which consent shall not be unreasonably withheld); provided that HELCO shall have the right, without the consent of SELLER, to assign its interest in this Agreement to the Trustee under its First Mortgage Bond Indenture dated December 1, 1938 as it may be amended from time to time including the amendment of June 20, 1963, and to any affiliated company owned in whole or in part by Hawaiian Electric Industries, Inc., provided further that such assignment does not impair the ability of SELLER to continue to receive the payments it is entitled to under this Agreement and, further provided that HELCO will remain directly responsible for any obligations under this Agreement that only HELCO, as the public utility serving the Island of Hawaii, can carry out.

17.3 Binding on Assigns

This Agreement and all of its covenants, terms and provisions shall be binding upon and shall inure to the benefit of and be enforceable by the parties hereto and their respective successors and assigns.

ARTICLE XVIII - CHANGE IN COMMITTED CAPACITY OF FACILITY

After the Phase 2 In-Service Date, SELLER shall not increase the Committed Capacity of the Facility to more than sixty thousand kilowatts (60,000 kW) (net) without the prior written approval of HELCO; provided, however, that in no event shall HELCO be obligated to approve a change in Committed Capacity. Unless waived by HELCO, any change in Committed Capacity will require that the Facility undergo the Capacity Test procedure referred to in Section 3.2C(22).

ARTICLE XIX - SALE OF FACILITY BY SELLER

19.1 HELCO's Right of First Refusal

Should SELLER ever desire to dispose of its right, title, or interest in the Facility, in whole or in part, other than the sale and leaseback of the Facility or other assignment or disposition of part or all of its ownership interests in the Facility to provide financing for the Facility, it shall first offer to sell such interest to HELCO. SELLER shall not solicit any offers for the sale of the Facility with any other entity without first negotiating with HELCO in good faith for at least ninety (90) days concerning a purchase by HELCO unless, during that period, HELCO gives written notice that such negotiations are terminated. Notwithstanding the above, in the event SELLER ceases negotiations with HELCO and, within one (1) year offers to sell the

Facility to a third party for less than the final amount HELCO had offered to purchase the Facility, HELCO shall have the right to purchase the Facility for such lower amount on similar terms and conditions; provided that HELCO shall have thirty (30) days in which to accept such terms and conditions. This Section 19.1 shall not apply to unsolicited offers received by SELLER or the sale or transfer of interests in SELLER (except the sale or transfer of 100% of the interest in SELLER) or a sale or transfer initiated by Financing Parties.

19.2 No Exercise of Right by HELCO

In the event that HELCO does not exercise its right to purchase such interest in the Facility under Section 19.1, SELLER shall have the right to transfer or sell such interest to any person or entity which proposes to acquire the Facility with the intent to continue the operation of the Facility in accordance with the provisions of this Agreement pursuant to an assignment of this Agreement, subject to the written approval of HELCO, which approval shall not be unreasonably withheld. HELCO will grant assignment of this Agreement to the purchaser upon being reasonably satisfied that the assignee (i) has the qualifications or has contracted with an entity having the qualifications to operate the Facility in a manner consistent with the terms and conditions of this Agreement and (ii) has provided HELCO with adequate assurances of its creditworthiness and ability to perform its financial obligations hereunder in a manner consistent with the terms and conditions of this Agreement.

ARTICLE XX - ESCROW ACCOUNT

To the extent permitted by the Financing Parties, SELLER shall grant to HELCO a security interest in any escrow or reserve accounts established in connection with financing for the Facility, securing all of SELLER's payment obligations hereunder. Such security granted by SELLER shall be subordinate to the rights of the Financing Parties in such accounts to the extent provided for under Section 3.1E, and shall permit recourse against such accounts by HELCO only if the Financing Parties having superior rights in such accounts have fully exercised such rights, received full satisfaction of the obligations secured by such rights, or provided HELCO with a written waiver or release of such rights. SELLER shall execute such documents as HELCO shall reasonably request to grant, establish, perfect and maintain such security interest. HELCO shall execute such documents as SELLER or Financing Parties shall reasonably request to subordinate HELCO's interests to that of the Financing Parties.

ARTICLE XXI - GUARANTEE

21.1 Guarantee(s)

Guarantor(s) shall be financially responsible for all of SELLER's payment obligations under this Agreement up to the Guaranteed Amount, including but not limited to, any penalties, Liquidated Damages, payments due from SELLER to HELCO under the Interconnection Agreement, and reimbursement of certain HELCO administrative costs under Article XXII.

SELLER shall, at its option, either (i) cause the Guarantor(s) to maintain the Guarantee(s) pursuant to Section 21.2 in full force and effect throughout the Term, or (ii) substitute therefor either:

A. an unconditional irrevocable direct pay or standby letter of credit in an amount determined pursuant to Section 21.2 issued by a bank in Hawaii acceptable to HELCO, in form and substance acceptable to HELCO; or

B. a payment bond or performance bond in an amount determined pursuant to Section 21.2 issued by a company acceptable to HELCO for payment to HELCO in the event of a breach of this Agreement by SELLER, in form and substance reasonably acceptable to HELCO.

HELCO shall not be obligated to release the Guarantor(s) from the Guarantee(s) unless the substitute proposed by SELLER under this Section 21.1 is fully acceptable to HELCO.

HELCO's release of the Guarantee(s) shall be terminated and the Guarantee(s) shall be reinstated at such time as any letter of credit or bond provided hereunder terminates. In addition, if a letter of credit or bond supplied hereunder is for less than the entire amount required under Section 21.2, then the Guarantee(s) shall be released only by an amount equal to the amount of payments covered by such letter of credit or bond.

Any letter of credit or bond proposed by SELLER as a substitute for the Guarantee(s) shall provide for payments to HELCO up to the Guaranteed Amount.

21.2 Guaranteed Amount

The Guaranteed Amount (or substitution therefor) shall be according to the following schedule:

From the PUC Approval Date through the Closing Date	\$200,000
From the Closing Date through the Phase 2 In-Service Date	\$1,000,000
From the Phase 2 In-Service Date through the end of the Term	\$3,000,000

**ARTICLE XXII - REIMBURSEMENT OF CERTAIN
HELCO ADMINISTRATIVE COSTS**

SELLER shall reimburse HELCO for its documented, reasonable out-of-pocket legal, consulting and administrative costs incurred by HELCO in the course of securing PUC approval

of this Agreement up to fifty thousand dollars (\$50,000). For the purpose of this Article XXII, HELCO's costs shall commence from the Execution Date and these costs shall be paid at the Closing Date, to the extent then accrued, with any additional costs to be paid on or before the Phase 2 In-Service Date. Payment shall be by wire transfer to HELCO's designated account at the Bank of Hawaii in Hilo, Hawaii, unless otherwise directed by HELCO. In the event such costs remain unpaid in whole or in part, HELCO shall have the right to offset such unpaid amounts against the initial Capacity Charge payment under this Agreement and any subsequent Capacity Charge payments until such costs have been reimbursed in full.

ARTICLE XXIII - MISCELLANEOUS

23.1 Recovery of Payments

No change may be made in the terms and conditions of this Agreement except by agreement of the parties hereto. The parties to this Agreement believe, and have entered this Agreement relying on the belief that, under and pursuant to PURPA and 18 C.F.R., Part 292, including, without limitation, 18 C.F.R. 292.304(b)(5) and (d)(2), after the PUC Order has become final and non-appealable: (i) no adjustment in the payments to be paid to SELLER under the provisions of this Agreement is either appropriate or lawful; and (ii) that, also in light of the foregoing, it is neither appropriate nor lawful for the PUC or any successor entity to deny HELCO the recovery of any or all amounts paid to SELLER pursuant to the terms of this Agreement. Both parties will extend their reasonable best efforts to resist and appeal any PUC actions, decisions, or orders denying or having the effect of denying or otherwise preventing HELCO from recovering any or all amounts paid to SELLER pursuant to the terms of the Agreement; provided that HELCO shall reimburse SELLER for any and all reasonable out-of-pocket expenses incurred in assisting HELCO in accordance with this Section 23.1.

Except as specifically provided in Section 2.2 hereof, the PUC's denial of HELCO's recovery of any amounts paid to SELLER pursuant to the terms of this Agreement shall have no effect on HELCO's obligations under this Agreement.

23.2 Notices

Except as otherwise specified in this Agreement, any notice, demand or request required or authorized by this Agreement to be given in writing to a party shall be either personally delivered or mailed by registered or certified mail (return receipt requested) postage prepaid to such party at the following address:

If to SELLER:	Encogen Hawaii, L.P. c/o Enserch Development Corporation 1817 Wood Street, Suite #550 - West Dallas, TX 75201 Attention: Vice President - Administration (214) 670-2712 (telephone)
---------------	--

(214) 670-2974 (fax)

If to HELCO:

Hawaii Electric Light Company, Inc.
P. O. Box 1027
Hilo, Hawaii 96720-1027
Attention: Manager, Production

The designation of such person and/or address may be changed at any time by either party upon written notice given pursuant to the requirements of this Section 23.2. A notice served by mail shall be effective upon receipt.

23.3 Entire Agreement

This Agreement, including all attachments, constitutes the entire understanding between the parties, supersedes any and all previous understandings between the parties, and binds and inures to the benefit of the parties, their successors and assigns. The parties have entered into this Agreement in reliance upon the representations and mutual undertakings contained herein and not in reliance upon any oral or written representation or information provided to one party by any representative of the other party.

23.4 Further Assurances

If either party determines in its reasonable discretion that any further instruments, assurances or other things are necessary or desirable to carry out the terms of this Agreement, the other party will execute and deliver all such instruments and assurances and do all things reasonably necessary or desirable to carry out the terms of this Agreement.

23.5 Severability

After the requirements of Section 23.14 have been satisfied, if any term or provision of this Agreement or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

23.6 No Waiver

The failure of either party to enforce at any time any of the provisions of this Agreement, or to require at any time performance by the other party of any of the provisions hereof, shall in no way be construed to be a waiver of such provisions, nor in any way to affect the validity of this Agreement or any part hereof or the right of such party thereafter to enforce every such provision.

23.7 Modification or Amendment

No modification, amendment or waiver of all or any part of this Agreement shall be valid unless it is reduced to writing and signed by both parties.

23.8 Governing Law and Interpretation

Interpretation and performance of this Agreement shall be in accordance with; and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

23.9 Counterparts

This Agreement may be executed in several counterparts and all so executed counterparts shall constitute one Agreement, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

23.10 Computation of Time

In computing any period of time prescribed or allowed under this Agreement, the day of the act, event or default from which the designated period of time begins to run shall not be included. If the last day of the period so computed is a Saturday, a Sunday, or a legal holiday in Hawaii, then the period shall run until the end of the next day which is not a Saturday, a Sunday, or a legal holiday in Hawaii. When the period of time prescribed or allowed is less than seven (7) days, intermediate Saturdays, Sundays, and legal holidays shall be excluded in the computation.

23.11 Thermal Energy Sales Contract

In the event SELLER intends to qualify as a QF by selling thermal energy, SELLER shall, subject to compliance with applicable confidentiality agreements, provide HELCO with a copy of the Thermal Energy Sales Contract(s) (redacted to delete any confidential or proprietary information), or a certificate to the effect that such contract(s) will provide for, at a minimum, useful thermal energy sales under normal operating conditions that are adequate to maintain the Facility as a Qualifying Facility under PURPA and, in no event shall thermal energy sales limit or restrict in any way the capability of the Facility or any portion thereof to operate under HELCO Dispatch in full compliance with the terms and conditions of this Agreement. Thereafter, SELLER shall not modify the Thermal Energy Sales Contract in a manner that would materially adversely impact its ability to perform its obligations hereunder.

23.12 Review of Financing Documents; Project Financing

The parties acknowledge that SELLER intends to obtain construction and term project financing for the Facility and that Financing Parties providing such financing will require the financing to be secured by liens upon the Facility and other assets of SELLER, including a

collateral assignment of this Agreement, the Interconnection Agreement and other Project Documents and all rights and obligations of SELLER hereunder and thereunder. HELCO shall execute and deliver on or before the Closing Date a consent to assignment of this Agreement and other related agreements ("Consent to Assignment"), and any other documents necessary to create a valid collateral assignment hereof to the Financing Parties, and shall cooperate with reasonable requests of the Financing Parties in connection with the documentation of any financing or refinancing with respect to the Facility, including execution and delivery of other customary certificates, instruments and opinions. The Consent to Assignment shall include, among other things, provisions giving the Financing Parties reasonably acceptable notice of and opportunity and right to cure any breach or event of default under this Agreement or the Interconnection Agreement, and shall contain terms and conditions (including notice and cure rights) generally required by lenders of long-term, non-recourse project loans, which terms and conditions shall be reasonably satisfactory to Financing Parties and HELCO.

To the extent permitted by the Financing Parties, SELLER shall provide HELCO with summaries of the key terms of the Financing Documents, amendments or modifications thereto, and any documents providing for a refinancing which would materially impact HELCO.

23.13 Confidential and Proprietary Information

If and to the extent any information or documents furnished by one party to the other under this Agreement are confidential or proprietary to the furnishing party, the receiving party shall treat the same as such and shall take reasonable steps to protect against the unauthorized use of disclosure of the same; provided, however, that such information and documents are conspicuously marked or otherwise clearly identified as confidential or proprietary when furnished; and provided further that this sentence shall not apply to (i) any information or documents which are in the public domain, known to the receiving party prior to receipt from the other party, or acquired from a third party without a requirement for protection or (ii) any use or disclosure required by any law, rule, regulation, order or other requirement of any governmental authority having jurisdiction. All other information and documents furnished under this Agreement shall be furnished on a non-confidential basis.

23.14 PUC Approval

The parties acknowledge and agree that this Agreement, and any amendments, supplements or related instruments thereto, is subject to approval by the PUC and the parties' respective obligations hereunder are conditioned upon receipt of such approval, except as specifically provided otherwise herein. Upon execution of this Agreement, the parties shall use their best efforts to obtain, on an expedited basis, an order from the PUC (the "PUC Order") that does not contain terms and conditions deemed to be unacceptable to the parties, and in a form deemed to be reasonable by the parties ordering that:

- (1) this Agreement is approved;
- (2) the Interconnection Agreement is approved;

(3) the purchased power costs to be incurred by HELCO as a result of this Agreement are reasonable;

(4) the buyout and deferral clauses, Sections 3.3B and 3.3C of this Agreement respectively, are reasonable;

(5) HELCO's purchased power arrangements under this Agreement, pursuant to which HELCO will purchase energy and Firm Capacity from SELLER, are prudent and in the public interest;

(6) increases and decreases in the purchased energy costs to be incurred by HELCO pursuant to this Agreement may be included in HELCO's Energy Cost Adjustment Clause during the Term of the Agreement;

(7) HELCO may include the power purchase costs incurred by HELCO pursuant to this Agreement, including Capacity Charge payments and Energy Charge payments in HELCO's revenue requirements for ratemaking purposes and for the purposes of determining the reasonableness of HELCO's rates during the Term of this Agreement; and

(8) in accordance with the request made by the parties pursuant to Section 3.2C(27)(viii), SELLER will not be considered a "public utility" subject to regulation by the PUC in the event the Facility loses its QF status due to Simple Cycle operation requested by HELCO.

23.15 Change in Standard System or Organization

A. Consistent With Original Intent

If, during the Term of this Agreement, any standard, system or organization referenced in this Agreement should be modified or replaced in the normal course of events, such modification or replacement shall from that point in time be used in this Agreement in place of the original standard, system or organization, but only to the extent such modification or replacement is generally consistent with the original spirit and intent of this Agreement.

B. Eliminated or Inconsistent With Original Intent

If, during the Term of this Agreement, any standard, system or organization referenced in this Agreement should be eliminated or cease to exist, or is modified or replaced and such modification or replacement is inconsistent with the original spirit and intent of this Agreement, then in such event the parties will negotiate in good faith to amend this Agreement to a standard, system or organization that would be consistent with the original spirit and intent of this Agreement.

23.16 No Party Deemed Drafter

No party shall be deemed the drafter of this Agreement. If this Agreement is ever construed by a court of law, such court shall not construe this Agreement or any provision hereof against any party as the drafter.

23.17 Headings

The Table of Contents and paragraph headings of the various sections have been inserted in this Agreement as a matter of convenience for reference only and shall not modify, define or limit any of the terms or provisions hereof and shall not be used in the interpretation of any term or provision of this Agreement.

(Signatures on the Following Page)

IN WITNESS WHEREOF, HELCO and SELLER have caused this Agreement to be executed by their respective duly authorized officers as of the date first above written.

HELCO: HAWAII ELECTRIC LIGHT COMPANY, INC.

By: Michael H. [Signature]
Its: Chairman of the Board

By: Daniel Hulee [Signature]
Its: President

SELLER: ENCOGEN HAWAII, L.P.

By: ENSERCH DEVELOPMENT CORPORATION
HAWAII, INC.
Managing General Partner

By: Allan V. Smith [Signature]
Name: Allan V. Smith
Title: Senior Vice President

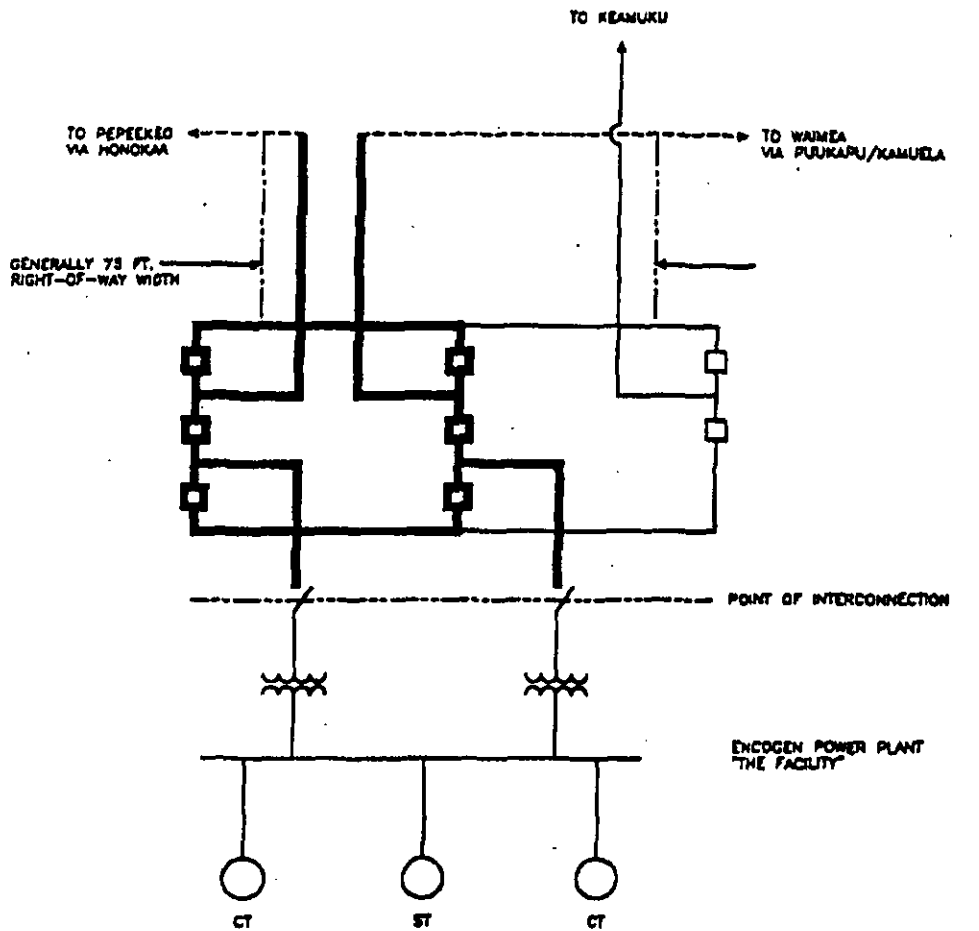
CA-IR-452
DOCKET NO. 05-0315
ATTACHMENT 1
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PAGE 101 OF 169

EXECUTION COPY

ATTACHMENT A
DIAGRAM OF INTERCONNECTION
(See definitions of Metering Point and Point of Interconnection)
[Provided as Exhibit 1 to Schedule 1
of Interconnection Agreement]

EXHIBIT A
PAGE 102 OF 189



LEGEND

- HELCO EXISTING FACILITIES
- ===== "INTERCONNECTION FACILITIES"
- "NEW TRANSMISSION LINE" FACILITIES

ENCOGEN/HELCO INTERCONNECTION AGREEMENT	
ONE LINE DIAGRAM OF INTERCONNECTION FACILITIES AND THE NEW TRANSMISSION LINE	
DATE: _____	EXHIBIT 1
BY: _____	_____

EXECUTION COPY

ATTACHMENT B
MILESTONE EVENTS
(See Sections 2.4A(1), 2.4A(2), 3.2A(2))

<u>EVENT</u>	<u>MONTHS AFTER PUC APPROVAL DATE</u>
- Application for all Construction Permits Filed	3 months
- Construction start (pouring of foundation for the first CT)	6 months

<u>EVENT</u>	<u>MONTHS AFTER PUC ORDER DATE</u>
- Receipt of final (appeals exhausted) PSD/Covered Source Permit	4 months

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ATTACHMENT C
SELECTED PORTIONS OF NERC GADS

Generating Availability Data System

DATA REPORTING INSTRUCTIONS

October 1996

North American Electric Reliability Council
Princeton Forrestal Village
116-390 Village Boulevard
Princeton, New Jersey 08540-5731

609-452-8060 Fax 609-452-9550 BBS 609-452-7669

A. EVENT IDENTIFICATION (cont.)

EXHIBIT A
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1. Outages

An outage exists whenever a unit is not synchronized to the grid system and not in a Reserve Shutdown state. The general outage event classification is divided into seven distinct event types. Special instructions for reporting testing during and following outages are shown on Page III-9.

PO - Planned Outage

An outage that is scheduled well in advance and is of a predetermined duration, lasts for several weeks, and occurs only once or twice a year. Turbine and boiler overhauls or inspections, testing, and nuclear refueling are typical Planned Outages.

MO - Maintenance Outage

An outage that can be deferred beyond the end of the next weekend, but requires that the unit be removed from service, another outage state, or Reserve Shutdown state before the next Planned Outage (PO). Characteristically, a MO can occur any time during the year, has a flexible start date, may or may not have a predetermined duration, and is usually much shorter than a PO.

SE - Scheduled Outage Extension

An extension of a Planned Outage (PO) or a Maintenance Outage (MO) beyond its estimated completion date.

Use an SE only in instances where the original scope of work requires more time to complete than originally scheduled. Do not use an SE in those instances where unexpected problems or delays outside the scope of work are encountered which render the unit out of service beyond the estimated end date of the PO or MO. Report these delays as Unplanned (Forced) Outage-Immediate (U1). An SE or U1 must start at the same time (month/day/hour/minute) the end of the PO or MO is reached. See Appendix G, Example 8A, Pages G-53 to G-57.

SF - Startup Failure

An outage that results when a unit is unable to synchronize within a specified startup time following an outage or Reserve Shutdown.

The startup period for each unit is determined by the operating utility. It is unique for each unit, and depends on the condition of the unit at the time of startup (hot, cold, standby, etc.). A startup period begins with the command to start and ends when the unit is synchronized. An SF begins when the problem preventing the unit from synchronizing occurs. The SF ends when the unit is synchronized, another SF occurs, or the unit enters another permissible state.

U1 - Unplanned (Forced) Outage - Immediate

An outage that requires immediate removal of a unit from service, another outage state, or a Reserve Shutdown state. This type of outage usually results from immediate mechanical/electrical/hydraulic control systems trips and operator-initiated trips in response to unit alarms.

A. EVENT IDENTIFIC. JN (cont.)

EXHIBIT A
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U2 - Unplanned (Forced) Outage - Delayed

An outage that does not require immediate removal of a unit from the in-service state but requires removal within six hours. This type of outage can only occur while the unit is in service.

U3 - Unplanned (Forced) Outage - Postponed

An outage that can be postponed beyond six hours but requires that a unit be removed from the in-service state before the end of the next weekend. This type of outage can only occur while the unit is in service.

Notes on Reporting Outages

Testing Following Outages

Typically following outages, equipment that was repaired or replaced is tested. These testing periods must be reported to GADS. The reporting procedure to follow depends on whether or not the unit was synchronized during the testing period:

a. On-line testing (synchronized)

If the unit must be on line and in service at some reduced load to perform testing following a Planned Outage (PO), Maintenance Outage (MO), or Unplanned (Forced) Outage (U1, U2, U3, SF), report the testing as a Planned Derating (PD), Maintenance Derating (D4), or Unplanned (Forced) Derating (D1), respectively (see Page III-10). The PD, D4, or D1 starts when the testing begins, and ends when testing is completed. Report any generation produced while the unit was on line during the testing period on the Performance Report (95) (see Page IV-7).

b. Off-line testing (not synchronized)

In cases where the unit does not have to be synchronized after the outage to perform testing, you can report the testing as part of the outage event using Section D of the Event Report (97). The outage ends when the testing is completed and the unit is placed in service or enters another state.

If you wish, you may report this type of testing separate from the outage event. In this case, the testing period becomes a new event, the outage ending when the testing period begins. You must use the same event type for the testing event as you did for the original outage (an SE is not considered an original outage — use the PO or MO event type, as appropriate). The testing event ends when the unit is synchronized or placed in another unit state.

A. EVENT IDENTIFICATION (cont.)

EXHIBIT A
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2. Deratings

A derating exists whenever a unit is limited to some power level less than the unit's Net Maximum Capacity. Similar to outages, the general derating event classification is divided into distinct event types, based on IEEE Standard 762.

Report all deratings that are greater than 2% of the unit's Net Maximum Capacity and longer than 30 minutes in duration. Lesser deratings can be reported at your discretion. Do not report deratings caused by ambient-related conditions or system dispatch requirements (see Notes on Reporting Deratings, Page III-11).

PD - Planned Derating

A derating that is scheduled well in advance and is of a predetermined duration.

Periodic deratings for tests, such as weekly turbine valve tests, should not be reported as PD's. Report deratings of these types as Maintenance Deratings (D4).

D4 - Maintenance Derating

A derating that can be deferred beyond the end of the next weekend but requires a reduction in capacity before the next Planned Outage (PO). A D4 can have a flexible start date and may or may not have a predetermined duration.

DE - Derating Extension

An extension of a Planned Derating (PD) or a Maintenance Derating (D4) beyond its estimated completion date.

Use a DE only in instances where the original scope of work requires more time to complete than originally scheduled. Do not use a DE in those instances where unexpected problems or delays outside the scope of work are encountered which render the unit incapable of full load beyond the estimated end date of the PD or D4. A DE must start at the same time (month/day/hour/minute) the end of the PD or D4 is reached.

D1 - Unplanned (Forced) Derating - Immediate

A derating that requires an immediate reduction in capacity.

D2 - Unplanned (Forced) Derating - Delayed

A derating that does not require an immediate reduction in capacity but requires a reduction within six hours.

D3 - Unplanned (Forced) Derating - Postponed

A derating that can be postponed beyond six hours but requires a reduction in capacity before the end of the next weekend.

A. EVENT IDENTIFIC. ON (cont.)

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3. Reserve Shutdown - RS

An event that exists whenever a unit is available for load but is not synchronized due to lack of demand. This type of event is sometimes referred to as an economy outage or economy shutdown. If a unit is shut down due to any equipment-related problems, whether or not the unit was needed by the system, report an Unplanned (Forced) Outage, Maintenance Outage, or Planned Outage, not a Reserve Shutdown.

While a unit is on RS, maintenance work is often performed that would have resulted in a unit outage or derating had the unit been on line. This work can be reported as part of the RS event if, at anytime, the work can be stopped or completed without preventing the unit from:

- a) synchronizing after a normal startup cycle; and,
- b) reaching its available capacity after a normal loading cycle.

This criterion remains the same whether or not the unit was needed by the system.

If the above criterion is met, report maintenance work done during the RS on the Event Report (97), Section D (beginning with Card 04), using an Event Contribution Code 3-Other Components Worked During Event.

If maintenance work cannot be stopped or completed the Reserve Shutdown condition of the unit is altered and an outage or derating must be reported. If the unit cannot be synchronized while the work is being performed, an outage exists and the RS must end. If the unit cannot attain its available capacity while the work is being performed, a derating exists. The RS event does not end, but report the derating too. Estimate the available capacity as a result of the derating.

4. Noncurtailing Event - NC

An event that exists whenever equipment or a major component is removed from service for maintenance, testing, or other purposes that does not result in a unit outage or derating.

An NC also can exist when a generating unit is operating at less than full capacity due to system dispatch requirements. During this period, equipment can be removed from service for maintenance, testing, or other reasons and be reported as an NC if both the following conditions are met:

- a) the available capacity of the unit is not reduced below that required by system dispatch; and,
- b) maintenance work can be stopped or completed and the unit reach its net dependable capacity (NDC) level within its normal ramp-up time, if and when the unit was needed by the system.

If the conditions cannot be met, report an outage or derating event rather than an NC.

APPENDIX F

PERFORMANCE INDEXES AND EQUATIONS

GENERAL INFORMATION

Appendix F discusses the relationships among the performance indexes calculated from the event and performance data outlined in Sections III and IV. The basis for these relationships is IEEE Standard No. 762 "Definitions for Use in Reporting Electric Generating Unit Reliability, Availability and Productivity."

Summary of Various Time and Energy Factors Used by Indexes

- | | |
|--|--|
| 1. Service Hours - SH | Sum of all Unit Service Hours. |
| 2. Available Hours - AH | Sum of all Service Hours (SH) + Reserve Shutdown Hours (RSH) + Pumping Hours + Synchronous Condensing Hours. |
| 3. Planned Outage Hours - POH | Sum of all hours experienced during Planned Outages (PO) + Scheduled Outage Extensions (SE) of any Planned Outages (PO). |
| 4. Unplanned Outage Hours - UOH | Sum of all hours experienced during Unplanned (Forced) Outages (U1, U2, U3) + Startup Failures (SF) + Maintenance Outages (MO) + Scheduled Outage Extensions (SE) of any Maintenance Outages (MO). |
| 5. Unplanned (Forced) Outage Hours - FOH | Sum of all hours experienced during Unplanned (Forced) Outages (U1, U2, U3) + Startup Failures (SF). |
| 6. Maintenance Outage Hours - MOH | Sum of all hours experienced during Maintenance Outages (MO) + Scheduled Outage Extensions (SE) of any Maintenance Outages (MO). |
| 7. Unavailable Hours - UH | Sum of all Planned Outage Hours (POH) + Unplanned (Forced) Outage Hours (FOH) + Maintenance Outage Hours (MOH). |
| 8. Scheduled Outage Hours - SOH | Sum of all hours experienced during Planned Outages (PO) + Maintenance Outages (MO) + Scheduled Outage Extensions (SE) of any Maintenance Outages (MO) and Planned Outages (PO). |

9. Period Hours - PH Number of hours in the period being reported that the unit was in the active state.
10. Equivalent Seasonal Derated Hours - ESEDH
$$\frac{\text{Net Maximum Capacity (NMC)} - \text{Net Dependable Capacity (NDC)} \times \text{Available Hours (AH)}}{\text{Net Maximum Capacity (NMC)}}$$

$$\frac{(\text{NMC} - \text{NDC}) \times \text{AH}}{\text{NMC}}$$

- 11a. Equivalent Unplanned (Forced) Derated Hours - EFDH (D1, D2, D3)

Each individual Unplanned (Forced) Derating (D1, D2, D3) is transformed into equivalent full outage hour(s). This is calculated by multiplying the actual duration of the derating (hours) by the size of the reduction (MW) and dividing by the Net Maximum Capacity (NMC). These equivalent hour(s) are then summed.

$$\frac{\text{Derating Hours} \times \text{Size of Reduction}^*}{\text{NMC}}$$

NOTE: Includes Unplanned (Forced) Deratings (D1, D2, D3) during Reserve Shutdowns (RS). See 11d, Page F-3.

- 11b. Equivalent Planned Derated Hours - EPDH (PD, DE)

Each individual Planned Derating (PD, DE) is transformed into equivalent full outage hour(s). This is calculated by multiplying the actual duration of the derating (hours) by the size of reduction (MW) and dividing by the Net Maximum Capacity (NMC). These equivalent hour(s) are then summed.

$$\frac{\text{Derating Hours} \times \text{Size of Reduction}^*}{\text{NMC}}$$

NOTE: Includes Planned Deratings (PD) during Reserve Shutdowns (RS). See 11d, Page F-3.

- * Size of Reduction is determined by subtracting the Net Available Capacity (NAC) from the Net Dependable Capacity (NDC). In cases of multiple deratings, the Size of Reduction of each derating will be determined by the difference in the Net Available Capacity of the unit prior to the derating and the reported Net Available Capacity as a result of the derating.

- 11c. Equivalent Unplanned Derated
Hours - EUDH
(D1, D2, D3, D4, DE)

Each individual Unplanned Derating (D1, D2, D3, D4, DE) is transformed into equivalent full outage hour(s). This is calculated by multiplying the actual duration of the derating (hours) by the size of reduction (MW) and dividing by the Net Maximum Capacity (NMC). These equivalent hour(s) are then summed.

Derating Hours x Size of Reduction*
NMC

NOTE: Includes Unplanned Deratings (D1, D2, D3, D4, DE) during Reserve Shutdowns (RS).
See 11d below.

- 11d. Equivalent Unplanned (Forced)
Derated Hours During Reserve
Shutdowns - EFDHRS
(D1, D2, D3)

Each individual Unplanned (Forced) Derating (D1, D2, D3) or the portion of any Unplanned (Forced) derating which occurred during a Reserve Shutdown (RS) is transformed into equivalent full outage hour(s). This is calculated by multiplying the actual duration of the derating (hours) by the size of the reduction (MW) and dividing by the Net Maximum Capacity (NMC). These equivalent hour(s) are then summed.

Derating Hours x Size of Reduction*
NMC

12. Number of Planned Outages
(PO) which occur from
in-service state only

A count of the number of all Planned Outages (PO) reported on the GADS Event Report (97).
(Since Scheduled Outage Extensions (SE) of Planned Outages are considered part of the original Planned Outage (PO), they are not included in this count.)

13. Number of Unplanned Outages
(MO, U1, U2, U3) which
occur from in-service
state only

A count of the number of all Unplanned Outages (U1, U2, U3, MO) reported on the GADS Event Report (97).
(IEEE Standard 762 does not include Startup Failures (SF) in this count.)

- * Size of Reduction is determined by subtracting the Net Available Capacity (NAC) from the Net Dependable Capacity (NDC). In cases of multiple deratings, the Size of Reduction of each derating will be determined by the difference in the Net Available Capacity of the unit prior to the derating and the reported Net Available Capacity as a result of the derating.

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11. Equivalent Unavailability Factor - EUF

$$EUF = \frac{\text{Planned Outage Hours} + \text{Unplanned Outage Hours} + \text{Equiv. Planned Derated Hours} + \text{Equiv. Unplanned Derated Hours}}{\text{Period Hours}}$$

12. Equivalent Availability Factor - EAF

$$EAF = \frac{\text{Available Hours} - \text{Equiv. Planned Derated Hours} - \text{Equiv. Unplanned Derated Hours} - \text{Equiv. Seasonal Derated Hours}}{\text{Period Hours}}$$

13. Gross Capacity Factor - GCF

$$GCF = \frac{\text{Gross Actual Generation}}{\text{Period Hours} \times \text{Gross Maximum Capacity}} \times 100$$

14. Net Capacity Factor - NCF

$$NCF = \frac{\text{Net Actual Generation}}{\text{Period Hours} \times \text{Net Maximum Capacity}} \times 100$$

Note: Net capacity factor calculated using this equation can be negative during a period when the unit is shutdown.

15. Gross Output Factor - GOF

$$GOF = \frac{\text{Gross Actual Generation}}{\text{Service Hours} \times \text{Gross Maximum Capacity}} \times 100$$

16. Net Output Factor - NOF

$$NOF = \frac{\text{Net Actual Generation}}{\text{Service Hours} \times \text{Net Maximum Capacity}} \times 100$$

17. Forced Outage Rate - FOR

$$FOR = \frac{\text{Unplanned (Forced) Outage Hours}}{\text{Unplanned (Forced) Outage Hours} + \text{Service Hours}} \times 100$$

18. Equivalent Forced Outage Rate - EFOR

$$EFOR = \frac{\text{Unplanned (Forced) Outage Hours} + \text{Equiv. Unplanned (Forced) Derated Hours}}{\text{Unplanned (Forced) Outage Hours} + \text{Service Hours} + \text{Equiv. Unplanned (Forced) Derated Hours during Reserve Shutdowns (RS) Only}}$$

19. Average Run Time - ART

$$ART = \frac{\text{Service Hours}}{\text{Actual Unit Starts}}$$

20. Starting Reliability - SR

$$SR = \frac{\text{Actual Unit Starts}}{\text{Attempted Unit Starts}} \times 100$$

EXECUTION COPY

ATTACHMENT D
FACILITY FUNCTIONAL DESCRIPTION
(See Section 2.1B)

The Facility is located on the Site near Haina, Hawaii. The Facility employs two (2) combustion turbines, two (2) heat recovery steam generators, and a steam turbine in combined cycle mode. Output from each generator will be produced at 13.8kV and transformed to 69kV for sale to HELCO. The Facility will utilize four (4) mechanical forced draft cooling towers. The Facility will utilize low sulfur fuel to mitigate SO_x emissions, and water injection and selective catalytic reduction to mitigate NO_x emissions.

Fuel will be delivered by tank trucks to aboveground storage tank(s) with an approximate capacity of seventy-seven thousand (77,000) barrels. The annual consumption is expected to be approximately seven hundred thousand (700,000) barrels.

The Facility will be designed to meet the requirements for starting times, ramp rates, and quick load pickup specified in Section 3.2C.

It is expected that thermal energy in the form of steam and/or heated water will be produced and sold to other customer(s) pursuant to one (1) or more Thermal Energy Purchase Agreement(s).

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EXECUTION COPY

ATTACHMENT E
FORM OF INTERCONNECTION AGREEMENT

INTERCONNECTION AGREEMENT

between

ENCOGEN HAWAII, L.P.

and

HAWAII ELECTRIC LIGHT COMPANY, INC.

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INTERCONNECTION AGREEMENT

This INTERCONNECTION AGREEMENT (this "Agreement"), is made as of this 22nd day of October, 1997, between ENCOGEN HAWAII, L.P., a Delaware limited partnership with its principal offices in Dallas, Texas ("SELLER"), and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation with its principal offices in Hilo, Hawaii ("HELCO").

RECITALS:

A. SELLER and HELCO have entered into a certain Power Purchase Agreement dated as of October 22, 1997 (the "Power Purchase Agreement" or "PPA"), pursuant to which SELLER will sell to HELCO electric output from an approximately 60-megawatt diesel oil-fired power production facility (the "Facility") to be constructed in Haina, Hawaii.

B. In order to permit a flow of electricity between the Facility and HELCO's existing electric system, certain interconnection facilities need to be constructed, all as more particularly described on Schedule 1 attached to this Agreement (collectively, the "Interconnection Facilities").

C. Pursuant to Decision and Order No. 15053 ("D&O No. 15053") issued by the Hawaii Public Utilities Commission ("PUC"), HELCO is required to design, procure and construct a new sixty-nine (69) kilovolt (kV) transmission line from Keanukū to the New Switching Station, all as more particularly described on Schedule 2 attached to this Agreement (the "New Transmission Line") and SELLER is required to make certain payments to HELCO in connection with the New Transmission Line.

D. SELLER and HELCO desire to set forth their respective responsibilities for the design, engineering, construction, ownership, operation and maintenance of the Interconnection Facilities, and certain costs and obligations associated therewith, and their respective responsibilities concerning the New Transmission Line pursuant to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the foregoing recitals, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each of SELLER and HELCO agrees as follows:

AGREEMENT

1. Definitions. Unless otherwise defined herein, all capitalized terms used in this Agreement shall have the meanings assigned to such terms in the Power Purchase Agreement.

- (a) "Baseline Interconnection Configuration" shall have the meaning set forth in Section 6(b).
- (b) "Contractors" shall have the meaning set forth in Section 2(b).
- (c) "Independent Engineer" shall have the meaning set forth in Section 10(a).
- (d) "New Switching Station" shall mean the new switching station to be designed and constructed by SELLER and transferred to HELCO as depicted in Exhibit 1 to Schedule 1 attached to this Agreement.
- (e) "Plans" shall have the meaning set forth in Section 2(c).
- (f) "Point of Interconnection" shall mean the point at the New Switching Station side of the high side step up transformer isolating switch, as depicted on the interconnection diagram attached as Exhibit 1 to Schedule 1 to this Agreement.
- (g) "Reconductoring Costs" shall have the meaning set forth in Section 10.
- (h) "Residual Payment Amount" shall have the meaning set forth in Section 7(b).
- (i) "Scope of Work" shall have the meaning set forth in Section 10(b).
- (j) "Specifications" shall have the meaning set forth in Section 10(b).
- (k) "Standards" shall have the meaning set forth in Section 2(c).
- (l) "Transfer Date" shall have the meaning set forth in Section 7(a).

2. Design, Engineering and Construction of Interconnection Facilities.

- (a) SELLER shall be responsible for the design, engineering and construction of the Interconnection Facilities.
- (b) SELLER may, at its option, engage third party consultants or contractors (the "Contractors") to perform its obligations hereunder; provided that SELLER's selection of any Contractor shall be subject to HELCO's prior approval, which approval shall not be unreasonably withheld.
- (c) The design and engineering plans (the "Plans") of SELLER regarding the Interconnection Facilities shall comply with (i) all applicable laws; (ii) HELCO's

design specifications and construction standards listed on Schedule 3 and (iii) Good Engineering and Operating Practices (collectively, the "Standards"). Unless otherwise agreed to by the parties, HELCO shall have twenty (20) days following receipt of SELLER's Plans for its review, comment and verification that the Plans comply with the Standards, which verification shall not be unreasonably withheld. HELCO shall be deemed to have waived its right to review and comment under this Section 2(c) and to have given its verification with respect to such Plans if it fails to exercise its rights within such twenty (20) day period. If HELCO reasonably determines that SELLER's Plans are not in accordance with the Standards, then it may request in writing a response from SELLER to its comments and SELLER shall respond in writing within twenty (20) days of such request by providing (i) its justification for why its Plans conform to the standards or (ii) changes in the Plans responsive to HELCO's comments and in accordance with the Standards.

(d) SELLER shall permit HELCO to inspect the construction of its Interconnection Facilities at all reasonable times during normal business hours and upon prior notice to its designated contact, which if oral shall be promptly documented in writing. SELLER shall also provide HELCO with monthly progress reports on the status of the construction. At HELCO's reasonable request, SELLER shall provide HELCO an opportunity to meet with appropriate personnel and any contractors to discuss and assess any such progress report.

(e) Construction of the Interconnection Facilities shall be completed and the Interconnection Facilities shall be demonstrated to be commercially operable by the Phase 1 In-Service Date Deadline, as extended for Force Majeure. In the event that SELLER fails to complete the Interconnection Facilities by such date, and the components not completed are necessary to SELLER's eligibility to receive Capacity Charge payments under Article V of the Power Purchase Agreement, HELCO shall have no obligation to make such Capacity Charge payments until such work is completed and the conditions of Article V of the Power Purchase Agreement are satisfied.

(f) HELCO and SELLER shall cooperate in good faith to coordinate tie-in of the Interconnection Facilities to HELCO's electrical system.

3. Governmental Approvals. SELLER shall obtain all required permits, licenses, approvals and other governmental authorizations (the "Governmental Approvals") required to construct, own and operate the Interconnection Facilities prior to the Transfer Date. HELCO shall obtain all other Governmental Approvals required, if any, to maintain and operate the Interconnection Facilities on and after the Transfer Date. On or before the Transfer Date, SELLER shall provide HELCO with copies of all such permits and approvals obtained by SELLER regarding the construction, ownership or operation of the Interconnection Facilities.

4. Easements and Rights-of-Way, Etc. SELLER shall obtain all easements and rights-of-way on the Site and on any other affected property which are required to construct, maintain and operate the Interconnection Facilities. At HELCO's request, SELLER shall use reasonable efforts to obtain perpetual easements; provided, that, HELCO shall pay or reimburse SELLER for any incremental costs incurred by SELLER in connection therewith. Such

easements and rights of way shall not contain terms and conditions which are not commercially reasonable and shall be provided in advance to HELCO for its review. Furthermore, to the extent the existing easement or right of way relating to SELLER's two one-mile lines are not adequate to also accommodate the corresponding segment of HELCO's New Transmission Line, SELLER shall use reasonable efforts to obtain the additional necessary easement; provided that HELCO shall pay or reimburse SELLER for any incremental costs incurred by SELLER in connection therewith.

5. Operation and Maintenance. SELLER shall operate and maintain, at its cost, the Interconnection Facilities prior to the Transfer Date. On and after the Transfer Date, HELCO shall own, operate and maintain the Interconnection Facilities. So long as the Interconnection Facilities are dedicated exclusively to SELLER, SELLER shall reimburse HELCO for all reasonable and routine operation and maintenance expenses of such facilities, subject to review and approval by SELLER, which approval shall not be unreasonably withheld. In the event HELCO taps off the lines or New Switching Station included in the Interconnection Facilities, for its benefit or the benefit of other parties (including, without limitation, other nonutility generators), HELCO or such other party shall share proportionately in the operation and maintenance expenses for that specific portion of the Interconnection Facilities. HELCO shall operate and maintain, at its cost, the remainder of the HELCO transmission system, including without limitation, the New Transmission Line.

6. Payment for the Interconnection Facilities.

(a) SELLER shall bear the cost of design, engineering and construction of the Interconnection Facilities. SELLER shall reimburse HELCO for the reasonable out-of-pocket costs for any work which may be done on such Interconnection Facilities by HELCO or its Contractors pursuant to this Agreement or at SELLER's request.

(b) HELCO shall, at SELLER'S option, reimburse SELLER or pay for any and all reasonable incremental costs which SELLER incurs or would incur relating to the Interconnection Facilities which are incurred to tie-in the New Transmission Line or which are necessary to accommodate the New Transmission Line, including without limitation the costs of any additional breakers, additional easements or rights of way, or the incremental costs of additional poles or the use of steel poles in lieu of wood poles, and any costs associated therewith. For purposes of this Agreement, such "incremental costs" shall include, without limitation, all procurement and construction costs above and beyond those that would normally be incurred in accordance with custom in the power generation industry in connection with a four-line (element) breaker and one half configuration, based on six breakers and two transformers (the "Baseline Interconnection Configuration"). SELLER shall bear any additional design costs associated with modification of the Baseline Interconnection Configuration to accommodate the New Transmission Line.

7. Transfer of Ownership/Title.

(a) Following completion of the construction of the Interconnection Facilities (but prior to the Phase I In-Service Date Deadline, as extended for Force Majeure), SELLER shall transfer (such transfer date, the "Transfer Date") to HELCO all of SELLER's right, title and interest in and to the Interconnection Facilities to the extent that such facilities were constructed and owned by SELLER. In connection with the transfer of the Interconnection Facilities, SELLER shall transfer and assign to HELCO all applicable manufacturer's or Contractor's warranties which are assignable. The Interconnection Facilities shall be transferred by SELLER to HELCO "as is, where is" and SELLER shall not provide any warranty whatsoever regarding the Interconnection Facilities, other than the assignment of such manufacturer's or Contractor's warranties.

(b) HELCO's title and ownership of the Interconnection Facilities shall be free and clear of subcontractor liens and encumbrances, subject to the following restrictions: (1) SELLER shall reserve and shall at all times have the right to use the Interconnection Facilities (as the same may be replaced, expanded, or modified) for so long as the Facility (as the same may be replaced, expanded, or modified) continues operations at the Site; provided, that SELLER shall have no right to use the Interconnection Facilities subsequent to the termination of the PPA or to receive the Residual Payment Amount (as defined herein) if such termination is the result of an event of default by SELLER pursuant to Sections 7.1A(4), (7), (8), (9), (12), (13), (18) or (19) of the PPA; and provided, further, that in the event the SELLER notifies HELCO that the Facility has ceased operations, HELCO shall, within thirty (30) days, pay SELLER an amount (the "Residual Payment Amount") to be determined by the parties in good faith based upon depreciated book value or salvage value of the Interconnection Facilities, whichever is greater (or by appraisal if the parties cannot agree within thirty (30) days) based upon the residual value of the Interconnection Facilities at the time the Facility ceases to operate and such right of access terminates; and (2) until such time as the Residual Payment Amount is paid and except as specifically provided otherwise in Section 8, HELCO shall not relocate the Interconnection Facilities or sell, lease or otherwise encumber such facilities without SELLER'S prior written consent. SELLER's continuing right to use the Interconnection Facilities after the term of the PPA as provided herein shall not, in and of itself, create any right of access to HELCO's electrical system for purposes of wheeling to other purchasers of energy and/or capacity and shall not preclude HELCO from charging for such wheeling services to the extent permitted by law and applicable regulations.

(c) In connection with the transfer of the Interconnection Facilities to HELCO, SELLER shall, at its option, grant or transfer to HELCO such easements, rights of way, or licenses as the case may be necessary to operate and maintain the Interconnection Facilities on and after the Transfer Date.

(d) In connection with SELLER's transfer of the Interconnection Facilities, HELCO shall be responsible for and shall pay any and all expenses, costs and taxes in connection with the transfer of the Interconnection Facilities and shall indemnify and make SELLER whole for any such taxes, expenses or costs. On and after the Transfer Date, HELCO

shall be responsible for all property and other taxes associated with the ownership and operation of the Interconnection Facilities.

(e) During the term of the PPA, the Interconnection Facilities shall be dedicated primarily to accommodate the delivery of electricity by SELLER to HELCO under the PPA (or, if applicable, by HELCO to SELLER), and SELLER shall not use the Interconnection Facilities in a manner that conflicts or interferes with the performance of its obligations under the PPA.

8. Relocation of Interconnection Facilities. Should HELCO be required after the Transfer Date, pursuant to (i) terms of an applicable easement relating to such Interconnection Facilities or (ii) a request by the State of Hawaii or a county thereof in the event such Interconnection Facilities fall within Hawaii's or such county's right of way, to relocate any part of the Interconnection Facilities, SELLER shall pay or reimburse HELCO for its reasonable, out-of-pocket cost and expenses in connection with such relocation and the reconnection of the Facility with HELCO's electrical system; provided, that HELCO shall use reasonable efforts to effect such relocation in a prompt and cost effective manner and shall, during any related disconnection of the Facility, continue to make Capacity Charge payments under the Power Purchase Agreement.

9. New Transmission Line.

(a) HELCO shall provide SELLER with monthly progress reports (or such other reports as filed by HELCO with the PUC) documenting HELCO's progress in constructing the New Transmission Line; provided, that HELCO's obligations to purchase energy and capacity under the Power Purchase Agreement shall not be affected in any way by HELCO's failure to complete or delays in completing the New Transmission Line. HELCO shall have full responsibility for and shall bear any and all costs of such actions or equipment as may be necessary for HELCO to accept the full electrical output of the Facility. In the event that HELCO is unable to accept the full electrical output of the Facility due to its failure to take such actions, HELCO shall be obligated to pay SELLER the Capacity Charge payments to which it would have been entitled under the PPA if HELCO had taken such necessary actions.

(b) In connection with the New Transmission Line, SELLER agrees to pay HELCO an amount equal to the Reconductoring Costs (as determined pursuant to Section 10) in three (3) installments as follows:

Upon the issuance of final, non-appealable PUC Order approving the PPA:	30%
--	-----

Upon HELCO's receipt of final Environmental Impact Statement regarding the New Transmission Line:	30%
---	-----

Upon energizing and placing of the New	
--	--

Transmission Line in service: 40%

Such amounts shall be due and payable by SELLER to HELCO within thirty (30) days after SELLER's receipt of: (i) a certificate signed by a duly authorized officer of HELCO, certifying that such milestone event has occurred; and (ii) such other supporting evidence and documentation as SELLER shall reasonably request. Except as provided in this Section 9(b), SELLER shall not be responsible for any other costs related to the New Transmission Line.

(c) Upon completion of the New Transmission Line, HELCO and SELLER shall cooperate to coordinate the tie-in of the New Transmission Line with Interconnection Facilities in a manner that minimizes the interruption of the Facility operation; provided that during such interruption HELCO shall remain obligated to make Capacity Charge payments to SELLER as provided in the PPA.

10. Determination of Reconductoring Costs.

(a) The parties shall hire an independent engineer (the "Independent Engineer") from the list of qualified independent engineers set forth on Schedule 4 attached hereto to determine the cost of reconductoring HELCO's sixty-nine (69) kV transmission line from its Waima Substation to its Honokaa substation (such cost, the "Reconductoring Costs").

(b) The scope of work to be performed by the Independent Engineer (the "Scope of Work") and the reconductoring specifications (the "Specifications") shall be mutually determined by the parties within forty-five (45) days following the PUC Submittal Date and shall be attached as Schedule 5 to this Agreement.

(c) The cost of the work to be performed by the Independent Engineer as provided in Section 10(b) shall be borne by SELLER.

(d) The Reconductoring Costs shall include only the cost of replacing the existing conductors (as of the date of this Agreement) on the Honokaa-Waima 69 kV transmission line, including, but not limited to, normal AFUDC (as determined in accordance with custom in the power generation industry), switching costs, traffic control costs and other costs normally incurred by HELCO in such reconductoring projects, but shall exclude the costs of pole replacement, unless such pole must be replaced by a larger pole to accommodate a higher rated conductor. Replacement of deteriorated poles shall not be included in determining Reconductoring Costs unless the pole would have been replaced under the foregoing sentence regardless of its condition.

(e) The Independent Engineer's determination of the Reconductoring Costs in accordance with the Scope of Work and the Specifications shall be accepted by the parties for purposes of calculating the payment pursuant to Section 9(b), unless either party can demonstrate the existence of a material error or omission by the Independent Engineer in making such determination. In the event of a dispute regarding such determination which is not resolved within thirty (30) days, the parties shall appoint a new Independent Engineer from the list on

Schedule 4, who shall review the work performed by the first Independent Engineer and issue a determination which shall be binding on the parties. The cost of the new Independent Engineer shall be borne by both parties equally.

11. Indemnification. In connection with the performance of this Agreement, each party agrees to indemnify and hold harmless the other party from and against any and all liabilities, claims, losses, damages, or expenses, including reasonable counsel fees, whether arising before or after completion of the work hereunder, which may be incurred or sustained by the indemnified party by reason of the negligence, willful act or omission of the other party.

12. PUC Approval. The parties' respective obligations hereunder shall be contingent on HELCO's receipt of the PUC Order as defined in the PPA.

13. Assignment. The parties shall have the right to assign this Agreement to the same extent the PPA may be assigned pursuant to Article XVII thereof.

14. Dispute Resolution. Except as provided in Section 10(e), any dispute arising under this Agreement shall be resolved, if possible, by HELCO's President and SELLER's project manager, or their respective designees, and any remaining disputes shall be resolved pursuant to arbitration in accordance with the procedures set forth in Article XIV of the PPA, or in the case of a dispute under Section 2(c) hereof, under Section 2.4C of the PPA.

15. Counterparts. This Agreement may be executed in several counterparts and all so executed counterparts shall constitute one Agreement, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

16. Termination; Survival. This Agreement shall be effective upon execution and shall be co-terminous with the Power Purchase Agreement, except for Sections 7(b) and 11 which shall survive termination.

17. Governing Law and Interpretation. Interpretation and performance of this Agreement shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

18. Modification or Amendment. No modification, amendment or waiver of all or any part of this Agreement shall be valid unless it is reduced to writing and signed by both parties.

19. Notices. Except as otherwise specified in this Agreement, any notice, demand or request required or authorized by this Agreement to be given in writing to a party shall be either personally delivered or mailed by registered or certified mail (return receipt requested) postage prepaid to such party at the following address:

If to SELLER: Encogen Hawaii, L.P.

c/o Enserch Development Corporation
1817 Wood Street, Suite #550 - West
Dallas, TX 75201
Attention: Vice President - Administration
(214) 670-2712 (telephone)
(214) 670-2974 (fax)

If to HELCO: Hawaii Electric Light Company, Inc.
P.O. Box 1027
Hilo, Hawaii 96720-1027
Attention: Manager, Production (or such other person who may be
designated in writing by HELCO)

The designation of such person and/or address may be changed at any time by either party upon written notice given pursuant to the requirements of this Section 19. A notice served by mail shall be effective upon receipt.

20. No Party Deemed Drafter. No party shall be deemed the drafter of this Agreement. If this Agreement is ever construed by a court of law, such court shall not construe this Agreement or any provision hereof against any party as the drafter.

21. Headings. The paragraph headings of the various sections have been inserted in this Agreement as a matter of convenience for reference only and shall not modify, define or limit any of the terms or provisions hereof and shall not be used in the interpretation of any term or provision of this Agreement.

22. No Waiver. The failure of either party to enforce at any time any of the provisions of this Agreement, or to require at any time performance by the other party of any of the provisions hereof, shall in no way be construed to be a waiver of such provisions, nor in any way to affect the validity of this Agreement or any part hereof or the right of such party thereafter to enforce every such provision.

23. Severability. If any term or provision of this Agreement or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

24. Entire Agreement. Except to the extent covered under the PPA, this Agreement shall constitute the entire agreement between the parties with respect to interconnection of the Facility with HELCO's electrical system, and shall supersede all prior contracts, proposals, negotiations, and discussions, whether written or oral. This Agreement shall govern in the event of a conflict as to interconnection matters between this Agreement and the PPA.

IN WITNESS WHEREOF, the parties have executed this Agreement as of
the day and year first above written.

HAWAII ELECTRIC LIGHT COMPANY, INC.

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

ENCOGEN HAWAII, L.P.

By: _____
A General Partner

By: _____
Name: _____
Title: _____

LIST OF SCHEDULES

- Schedule 1 Interconnection Facilities
- Schedule 2 New Transmission Line
- Schedule 3 List of HELCO Design Specifications and Construction Standards
- Schedule 4 List of Independent Engineers
- Schedule 5 Scope of Work; Specifications

EXECUTION COPY

SCHEDULE 1

Interconnection Facilities

The Interconnection Facilities set forth in this Schedule 1 shall be installed to form a connection between the Facility and HELCO's electrical system. For the purposes of this Interconnection Agreement, HELCO's electrical system begins at the edge of the Honokaa - Puukapu 69-kV transmission line right-of-way (the "HELCO ROW") and adjacent to the Honokaa substation where the two, new 69-kV transmission lines from the New Switching Station shall connect (by means of a flying tap) to the existing Honokaa - Puukapu 69-kV transmission line - forming a Hamakua - Honokaa 69-kV transmission line and a Hamakua - Puukapu 69-kV transmission line. The two, new 69-kV transmission lines will be terminated onto an anchor pole (if applicable) installed by HELCO at EDC's cost within the HELCO ROW.

The Interconnection Facilities shall be comprised of all power system equipment installed by SELLER and other related equipment as necessary for the interconnection in conformance with the Specifications and Standards listed on Schedule 3, between the high-side switches of the Facility's 13.8/69-kV step-up transformers and HELCO's electrical system, including the following elements, as depicted in Exhibit 1:

1. "The 69-kV New Switching Station, including site preparation, fencing, gates, trenching for cable placement, structures, and buswork configured initially to operate with six (6) breakers arranged in a breaker-and-a-half scheme."¹
2. One (1) 69-kV transmission line from the New Switching Station to the HELCO ROW system, approximately one (1) mile in length, referred to as the Hamakua - Honokaa 69-kV transmission line.²
3. One (1) 69-kV transmission line from the New Switching Station to the HELCO ROW system, approximately one (1) mile in length, referred to as the Hamakua - Puukapu 69-kV transmission line.
4. Six (6) 69-kV circuit breakers, and associated switches, relays, protection, and controls for the New Switching Station connection of:
 - 4.a. the Facility's two (2) 13.8/69-kV generator step-up transformers, each rated adequately to handle the entire output of the Facility;
 - 4.b. the Hamakua - Honokaa 69-kV transmission line; and

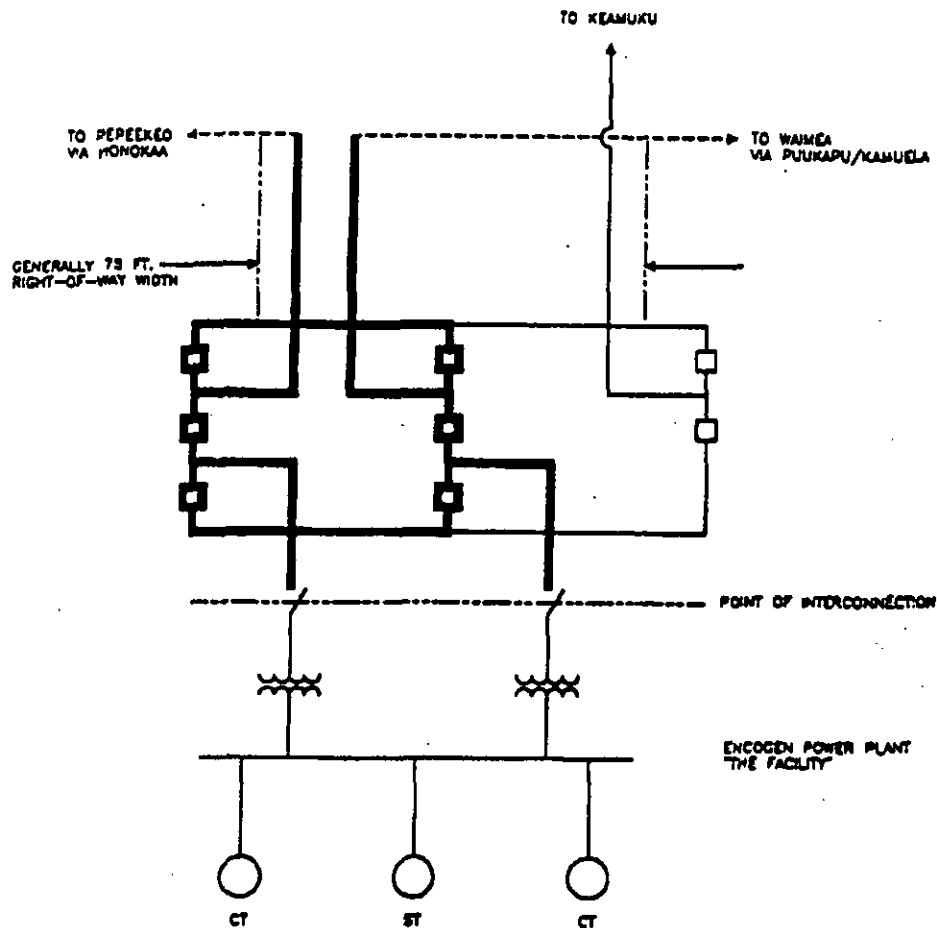
¹ The New Switching Station site preparation, fencing, and gates will be designed to accommodate a maximum of nine (9) 69-kV circuit breakers arranged in a breaker-and-a-half scheme.

² The new Hamakua-Honokaa 69-kV transmission line and the new Hamakua-Puukapu 69-kV transmission line may be supported on two, separate, wood pole lines, or on a single, steel, double-circuit tower line.

4.c. the Hamakua - Puukapu 69-kV transmission line.

5. In the event HELCO reasonably requests a change in the configuration from that depicted on Schedule 1, SELLER shall in good faith consider measures to accommodate HELCO's request; provided, that, HELCO shall reimburse and make SELLER whole with respect to all direct or indirect costs or loss of revenues resulting from accommodating HELCO's request.

EXHIBIT A
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LEGEND

- HELCO EXISTING FACILITIES
- ===== "INTERCONNECTION FACILITIES"
- "NEW TRANSMISSION LINE" FACILITIES

ENCOGEN/HELCO INTERCONNECTION AGREEMENT	
ONE LINE DIAGRAM OF INTERCONNECTION FACILITIES AND THE NEW TRANSMISSION LINE	
DATE: _____	EXHIBIT 1
BY: _____	

SCHEDULE 2

New Transmission Line

The New Transmission Line facilities shall be installed by HELCO in conformance with the Specifications and Standards listed on Schedule 3, and shall include the following elements as depicted on Exhibit 1:

1. One (1) 69-kV transmission line from the New Switching Station to HELCO's existing Keamuku substation, approximately twenty-nine (29) miles in length, referred to as the Hamakua - Keamuku 69-kV transmission line.
2. Four (4) 69-kV circuit breakers two (2) at the New Switching Station and two (2) at the Keamuku Substation, and associated switches, relays, protection, and controls for the breaker-and-a-half New Switching Station connection of the Hamakua - Keamuku 69-kV transmission line.
3. Modifications to HELCO's Keamuku substation associated with the breaker-and-a-half connection of the Hamakua - Keamuku 69-kV transmission line.
4. Reconductoring and/or rebuilding the 69-kV transmission line segments from:
 - 4.a. Keamuku substation to Puuhuluhulu substation;
 - 4.b. Puuhuluhulu substation to Puuwaawaa substation;
 - 4.c. Puuwaawaa substation to Huehue; and
 - 4.d. Huehue substation to Keahole substation.
5. Addition of twelve (12) megavars of 69-kV shunt capacitors in West Hawaii.

SCHEDULE 3

HELCO Design Specifications and Construction Standards

Hawaii Electric Light Co. Inc.'s Overhead Transmission Line Design and Construction Specifications (a copy of which is on file at the offices of HELCO and Enserch), as transmitted by HELCO to Enserch on or about October 10, 1995.

SCHEDULE 4

List of Independent Engineers

1. Mr. Mark Shaw
C. H. Guernsey & Company
5555 N. Grand Blvd.
Oklahoma City, OK 73112
405-947-5515
405-947-5542 (fax)
2. Mr. M. L. Norton
Miner & Miner Consulting Engineers, Inc.
910 27th Avenue
Greeley, CO 80631
970-352-3706
970-352-3716 (fax)
3. Sylva Engineer Corp.
1303-B Sherwood Forest
Houston, TX 77043
713-973-7329
713-973-7359 (fax)
4. R. W. Beck
2101 Fourth Avenue
Suite 600
Seattle, WA 98121-2375
206-441-7500
206-441-4962 (fax)

SCHEDULE 5

**Scope of Work for Independent Engineering Services
To Estimate the Cost of Reconductoring the Honokaa-Waimea 69-kV Line**

1. **Scope.** The Independent Engineer shall provide a cost estimate for the reconductoring of the existing 69-kV line between Hawaii Electric Light Company's (HELCO) Honokaa and Waimea Substations. The cost estimate shall include the labor and equipment cost of all removal of conductor, insulators and miscellaneous hardware net of material salvage value shown in HELCO's accounting property records. The cost estimate shall include labor, equipment and material cost of new poles, conductors, insulators, guys, anchors and other miscellaneous hardware required to make the facilities complete and operational. The cost estimate shall include the cost of required pole relocations and the transfer of existing distribution facilities to new and relocated poles. The reconductoring cost estimate shall not include any cost of ordinary replacement of deteriorated facilities. The Independent Engineer shall be a currently licensed Professional Engineer in the State of Hawaii.

The Independent Engineer shall utilize as the primary basis for the cost estimate at least four similar projects commenced or completed within the last 24 months. At least two such projects shall have been in the State of Hawaii, and if possible, publicly bid. The remaining two projects shall have been publicly bid. The Independent Engineer shall provide to both parties a copy of all documents and data relied upon in producing the cost estimate.

2. **References.** The independent engineer shall utilize the Standards referenced in Section 2(c) of this agreement.

3. **Materials.** The facilities shall be designed using HELCO's material standards. HELCO will provide a list of acceptable materials in use prior to commencement of work. The new conductor shall be 556.5 kcmil AAC (Dahlia). The shield wire shall be 195.7 kcmil (Amherst).

4. **Information To Be Provided to the Independent Engineer.** HELCO shall provide "as built" drawings of the existing facilities including distribution underbuild.

5. **Information To Be Provided By the Independent Engineer.** The Independent Engineer shall provide a labor and material cost estimate for the project along with a discussion of the development of the cost estimates including adjustments made. The cost estimate shall be broken down by construction units with all distribution shown as separate construction units. Prior to commencing work on the cost estimate the Independent Engineer shall also provide plan and pole framing elevation drawings for approval of both Enserch and HELCO. A bill of materials retired and a bill of materials installed shall also be provided for approval prior to commencing work on the cost estimate.

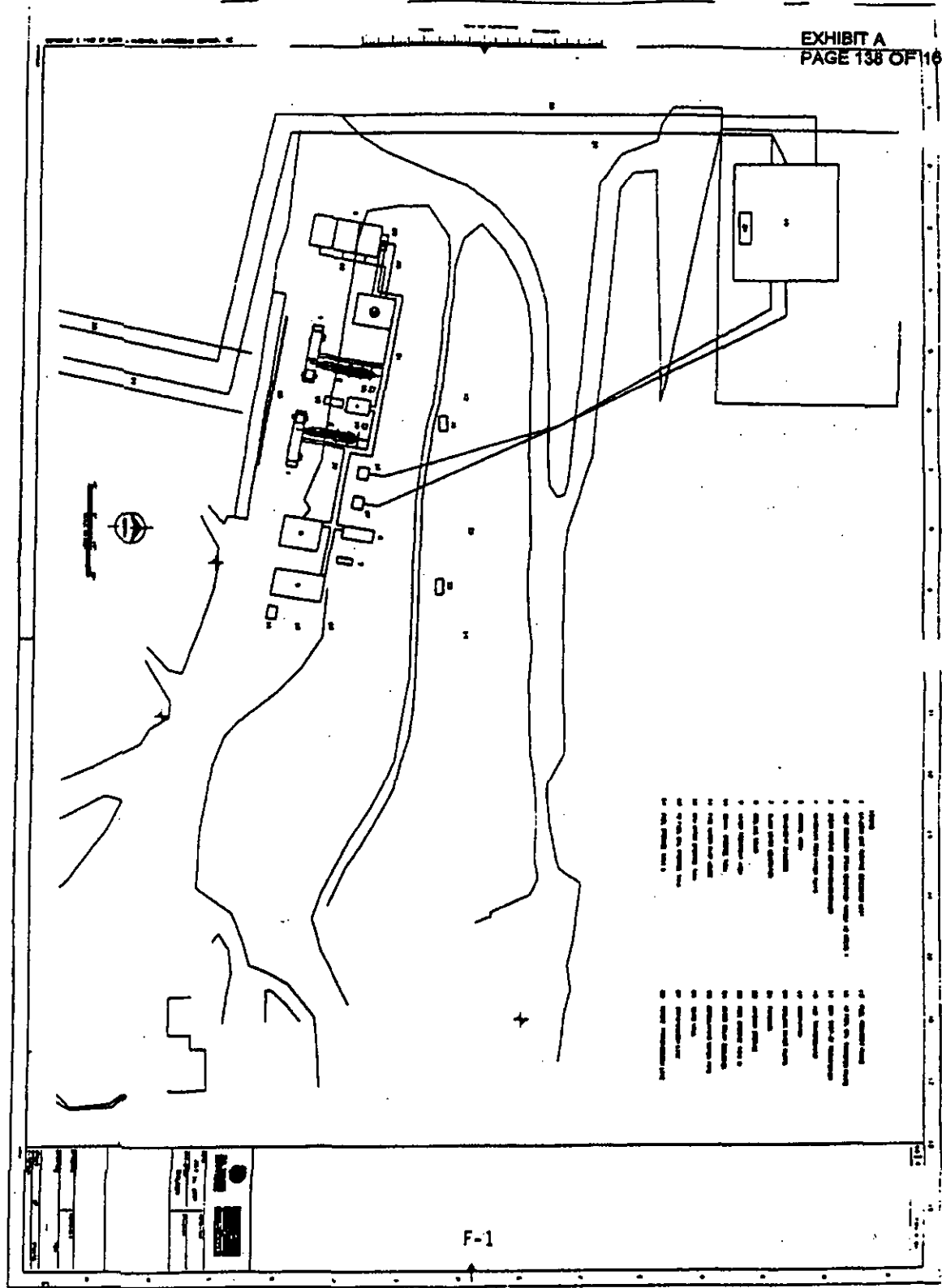
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ATTACHMENT F
FACILITY LOCATION AND LAYOUT
(See Section 2.1C)

EXHIBIT A
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ATTACHMENT G
SUMMARY OF MAINTENANCE AND INSPECTION PERFORMED
IN PRIOR CALENDAR YEAR
(See Section 3.2B(5))

DATE WORK ORDER SUBMITTED: 06/28/96
WO#: 11451
EQUIPMENT #: ICCF-TNK-1
EQUIPMENT DESCRIPTION: AMMONIA STORAGE TANK 1
PROBLEM DESCRIPTION: PURCHASE EMERGENCY ADAPTER FITTINGS FOR
UNLOADING GASPRO TANKS TO STORAGE TANK

WORK PERFORMED: PURCHASED THE NEW ADAPTERS AND VERIFIED THEIR
OPERATION.

COMPLETION DATE: 06/28/96
WORK ORDER COMPLETED BY: AA

-----END OF CURRENT WORK ORDER-----

DATE WORK ORDER SUBMITTED: 05/19/96
WO#: 11136
EQUIPMENT #: 1WSA-BV-12
EQUIPMENT DESCRIPTION: MAKE-UP PI ISOLATION
PROBLEM DESCRIPTION: 'D' MAKE-UP PUMP PI ISOLATION FITTING LEAKING ON
SPOOL SIDE

WORK PERFORMED: REMOVED AND REPLACED FITTINGS AND FLANGES
WITH STAINLESS STEEL. THIS WORK WAS DONE DURING PUMP OVERHAUL ON
WO 1374. JH

COMPLETION DATE: 06/28/96
WORK ORDER COMPLETED BY: BB

-----END OF CURRENT WORK ORDER-----

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ATTACHMENT H
QUALIFIED INDEPENDENT ENGINEERS LIST
(See Section 3.3D)

Black & Veatch
8400 Ward Parkway
P. O. Box 8405
Kansas City, Missouri 64114
Phone: (913) 339-2530
FAX: (913) 339-2934

R. W. Beck
2101 Fourth Avenue
Suite 600
Seattle, WA 98121-2375
Phone: (206) 441-7500
Fax: (206) 441-4962

Burns & McDonnell
4800 East 63rd Street
Kansas City, Missouri 64130
Phone: (816) 822-3091
FAX: 816-333-3690

Parsons Brinckerhoff Energy Services, Inc.
303 Second Street, Suite 850
San Francisco, CA 94107-1368
Phone: (415) 281-8700
FAX: (415) 281-8707

Raytheon
3000 W. MacArthur Boulevard
Santa Ana, CA 92701
Phone: (714) 662-4000
FAX: (714) 662-4048

Sargent & Lundy
55 East Monroe Street
Chicago, Illinois 60603-5780
Phone: (312) 269-2246
FAX: (312) 269-3146

Stone & Webster Engineering Corporation
7677 East Berry Avenue
Englewood, Colorado 80111-2137
Phone: (303) 741-7103
FAX: (303) 741-7670

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ATTACHMENT I
ADJUSTMENT OF CHARGES
(See Sections 3.2C(23), 3.2J, 5.1, 8.4)

Charges subject to adjustment based on GDPIPD will be adjusted by the following formula:

$$\text{New Charge} = \text{Base Charge} \times \frac{\text{GDPIPD}_{\text{CURRENT}}}{\text{GDPIPD}_{\text{BASE}}}$$

where:

New Charge	=	adjusted charge
Base Charge	=	charge (in dollars) calculated per this Agreement
GDPIPD _{CURRENT}	=	GDPIPD, as adjusted, in effect at the time the energy is delivered
GDPIPD _{BASE}	=	The "Final" GDPIPD for the Third Quarter of the year prior to the Reference Year.

An adjustment shall be made on each January 1 equal to one hundred percent (100%) of the percentage change between the "Final" Third Quarter Reference Year GDPIPD ("GDPIPD_{BASE}") and the previous year's Third Quarter "Final" GDPIPD value.

When adjusting the charges subject to adjustment based on GDPIPD, the adjustment shall first apply to the energy delivered by SELLER to HELCO in the month of the adjustment date (January 1) and then invoiced for payment in the following month.

For purposes of this Attachment, the term "Reference Year" refers to the base year specifically referred to within the Agreement as the starting point for escalation.

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ATTACHMENT J
REQUIRED INSURANCE
(See Article XIII)

(a) Worker's Compensation and Employers' Liability. This coverage shall include worker's compensation, temporary disability and other similar insurance required by applicable Hawaii state or U.S. federal laws. If exposure exists, coverage required by the Longshore and Harbor Worker's Compensation Act (33 U.S.C. § 688) shall be included. Additionally, coverage under this subsection shall include a Voluntary Compensation and Employers' Liability endorsement for employees not subject to the Workers' Compensation laws. Employers' Liability coverage limits shall be no less than:

Bodily Injury by Accident - \$1,000,000 each Accident
Bodily Injury by Disease - \$1,000,000 each Employee
Bodily Injury by Disease - \$1,000,000 policy limit

(b) General Liability Insurance. This coverage shall include either Comprehensive General Liability, Commercial General Liability Insurance or the reasonable equivalent thereof, covering all operations by or on behalf of SELLER. Such coverage shall provide insurance for bodily injury and property damage liability for the limits of liability indicated below and shall include coverage for:

- (1) Premises, operations, and mobile equipment,
- (2) Products and completed operations,
- (3) Owners and contractors protective liability,
- (4) Contractual liability,
- (5) Broad form property damage (including completed operations),
- (6) Explosion, collapse and underground hazard, and
- (7) Personal injury liability.

Limits of liability for such coverage, which may be provided with umbrella and/or excess insurance coverage, shall be:

Bodily Injury & Property \$20,000,000 per occurrence and
Damage \$20,000,000 aggregate annually

(c) Automobile Liability Insurance. This insurance shall include coverage for owned, leased and non-owned automobiles. The limits of liability shall be a combined single limit for

bodily injury and property damage of Two Million Dollars (\$2,000,000) for each occurrence and in the aggregate annually. If general liability insurance is provided by a commercial general liability policy, then such general liability policy shall include coverage for automobile contractual liability as required under this item (c).

(d) Builders All Risk Insurance. This insurance shall include coverage for earthquake and flood perils including transit (excluding ocean transit), testing, incidental storage, structures, buildings, improvements and temporary structures used in construction, or part of the permanent Facility from the start of construction through the earlier of the End of Phase 2 Start-Up or the effective date of the policy coverage set forth in paragraph (e). The amount of coverage shall be purchased on a full replacement cost basis, and the sublimits for earthquake and flood perils shall be 40% of replacement cost at such time up to Twenty Million Dollars (\$20,000,000), if such insurance amounts are available on commercially reasonable terms. The coverage shall be written on a standard "ISO" "All Risks" completed value form or equivalent and may allow for reasonable other sublimits including, but not limited to, One Million Dollars (\$1,000,000) for transit and Five Million Dollars (\$5,000,000) for incidental offsite storage. Coverage shall be extended to include testing.

(e) All Risk Property/Comprehensive Boiler and Machinery Insurance (Upon Completion of Construction). This insurance shall provide All Risk Property Coverage (including the perils of earthquake and flood) and Comprehensive Boiler and Machinery Coverage against damage to the Facility. The amount of coverage shall be purchased on a full replacement cost basis and the sublimits for earthquake and flood perils shall be no less than Twenty Million Dollars (\$20,000,000), if such insurance amounts are available on commercially reasonable terms. Such coverage may allow for other reasonable sublimits. Such policies shall be endorsed to require that the coverage afforded shall not be canceled (except for nonpayment of premiums) or reduced without at least thirty (30) days prior written notice to SELLER and HELCO, provided, however, that such endorsement shall provide (i) that the insurer may not cancel the coverage for non-payment of premium without giving SELLER and HELCO five (5) days notice that SELLER has failed to make timely payment thereof, and (ii) that, subject to the consent of the Financing Parties, SELLER or HELCO shall thereupon have the right to pay such premium directly to the insurer.

(f) Business Interruption Insurance (Upon Completion of Construction). This insurance shall provide coverage for all of SELLER's costs to the extent that they would not be eliminated or reduced by the failure of the Facility to operate for a period of at least twelve (12) months following a covered physical damage loss deductible period or reasonable dollar deductible.

(g) Project Liability Errors and Omissions. SELLER shall be adequately protected against project liability errors and omissions on account of negligent actions or inactions of architects, engineers, contractors and subcontractors involved in the construction of the Facility. This protection may be provided through any one or more of the following mechanisms:
(i) construction contract(s) with the above parties who have sufficient financial creditworthiness

to cover project liability errors and omissions; (ii) other agreement(s) with the above parties; or (iii) reserve account(s) which may be used to correct material deficiencies associated with the Facility as a result of negligent actions or inactions of the above parties.

(h) Ocean Transit. SELLER shall take reasonable action to ensure that the risk of loss or damage to any material items of equipment which are subject to ocean transit is adequately protected against by the terms of delivery from contractors or suppliers of such equipment or SELLER's own insurance coverage.

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ATTACHMENT K
CALCULATION OF RAMP DERATING PENALTY
(See Section 8.1C)

Example:

Capacity Charge Rate		\$0.01981/kWh
Unit capacity		25 MW
Unit capacity during ramp derating period		21.5 MW
Ramp derating		3.5 MW
Duration of ramp derating period		48 hours
Penalty	=	$\$0.01981/\text{kWh} \times 3,500 \times 48$
	=	$\$0.01981 \times 3,500 \times 48$
	=	\$3,328.08

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ATTACHMENT L
CAPACITY TESTING PROCEDURES
(See Section 3.2C(22))

I. Initial Acceptance Tests

A. When Phase 1 and Phase 2 of the Facility are ready for their respective Initial Acceptance Test, SELLER shall notify HELCO at least seven (7) days prior to such test and shall coordinate with HELCO. SELLER shall perform and HELCO shall monitor such test no earlier than seven (7) days of HELCO's receipt of such notice.

B. The Initial Acceptance Test shall be performed for each of Phase 1 and Phase 2 as follows:

(1) The test shall last for forty-eight (48) hours and shall be scheduled on the start-up plan provided by SELLER to HELCO in accordance with Section 5.1.

(2) During the test period, the Facility shall operate in accordance with the Dispatch instructions of HELCO's System Operator, subject in all cases to Good Engineering and Operating Practices and the safety and design limits of the Facility as specified by the applicable equipment manufacturers.

(3) If SELLER and HELCO are satisfied with the Initial Acceptance Test, Firm Capacity shall be designated by SELLER up to the minimum average capacity level that the Facility is able to sustain over a fifteen (15) minute interval in which the Facility is being dispatched at maximum capacity; provided that SELLER may not without HELCO's consent, set the Firm Capacity at a level in excess of the Committed Capacity.

(4) If either SELLER or HELCO reasonably believes that an abnormal condition occurred which may have adversely impacted the Initial Acceptance Test, such party may request a re-test at such party's expense.

(5) If, following two re-tests, the parties cannot agree that such Initial Acceptance Test produced accurate and reliable results, the parties shall hire a Qualified Independent Engineer, from the list set forth in Attachment H, to observe a third test and declare the Firm Capacity. The cost of such Qualified Independent Engineer shall be shared equally by the parties.

(6) The parties shall not hire a Qualified Independent Engineer if following two or more re-tests both parties agree that such Initial Acceptance Test produced inaccurate or unreliable results; provided that the provisions regarding the hiring of a Qualified Independent Engineer shall apply if the parties fail to agree to the results of any subsequent test.

(7) If SELLER is unable to complete the Initial Acceptance Test or a subsequent test for any reason, it shall be permitted to re-conduct such test.

C. If SELLER's acceptance test under its construction contract includes the requirements set forth for the Initial Acceptance Tests provided hereby, and HELCO has an adequate opportunity to monitor such test, the Facility shall, upon passing such acceptance test, be deemed to have passed the Initial Acceptance Test provided herein, without the need to conduct a separate test.

II. Subsequent Capacity Tests.

The procedures set forth for Initial Acceptance Tests shall apply to any subsequent Capacity Test, except that (1) such test shall last twenty-four (24) hours; (2) such test shall be observed by appropriate qualified HELCO personnel; and (3) during such test, HELCO shall also, if appropriate, test the ramp rates of the Facility, all in accordance with Section 3.2 of this Agreement and Good Engineering and Operating Practices.

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ATTACHMENT M
UNIT INCIDENT REPORT
(See Section 3.2B(4))

Unit: _____ Date: _____ No. _____

	Plant	CT 1	CT 2	ST
Start				
End				
Duration				
Derating				

- ☐ Unit Trip
- ☐ Test
- ☐ Forced Outage
- ☐ Fail To Start
- ☐ Risk Condition
- ☐ Force Majeure
- ☐ Other
- ☐ Derating

The on-duty Control Room Operator is responsible for the completion of this report each time a unit experiences an unplanned Shutdown, Start Failure or Derating. Attach Trip Log and Sequence of Events Log to this report for unit trips or when appropriate. Before resetting alarms and relays, verify that all alarms and protective relay actions are listed on the printout. If not listed, record them and attach to report.

Unit Status Prior to Incident: ☐ Start-Up Load: _____
☐ On-Line Voltage: _____

Load: ☐ Constant Type of Fuel: ☐ Diesel
☐ Increasing ☐ Other
☐ Decreasing ☐

Cause of Incident: ☐ HRSG Trip _____
☐ Turbine Trip _____
☐ Generator Trip _____

Derating:

CT1 _____ Derated MW output _____ Hours _____ MW hours(MW*Hrs)
CT2 _____ Derated MW output _____ Hours _____ MW hours(MW*Hrs)
ST _____ Derated MW output _____ Hours _____ MW hours(MW*Hrs)

Brief Explanation of Incident:

Control Room Operator: _____ Date/Time: _____

Lead Technician On Duty: _____ Area Leader: _____

Unit Incident Report (Page 2)

Corrective Action Taken:

[illegible]

(Plant Manager)

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ATTACHMENT N
[INTENTIONALLY OMITTED]

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ATTACHMENT O
DESIGN MATERIALS

- Site Plan
- General Arrangement Layout
- Plant Description
- Preliminary Equipment List
- Preliminary Design and Specifications for Following Major Equipment Components
 - Combustion Turbine/Generators
 - Heat Recovery Steam Generators
 - Steam Turbine/Generator
 - Main Step-Up Transformers
 - Cooling Tower
 - Black Start Generator
 - Boiler Feedwater Pumps
 - Water Treatment System

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ATTACHMENT P
SAMPLE ENERGY PAYMENT CALCULATION

After Phase 2 In-Service Date

Assumptions:

1. During May 1997, the Facility generated electricity during six 15-minute periods (total 1.5 hours).
2. The final 3rd quarter 1995 GDPIPD (GDPIPD_{BASE}) is 107.8 (see United States Department of Commerce News report BEA 96-05, Gross Domestic Product: Third Quarter 1995 (Final), Table 4).
3. The final 3rd quarter 1996 GDPIPD (GDPIPD_{CURRENT}) is 109.9 (see United States Department of Commerce News report BEA 96-40, Gross Domestic Product: Third Quarter 1996 (Final), Table 4).
4. The Facility_{PRICE} (HELCO's total cost of delivered No. 2 fuel oil at Keahole) is 599.84¢/mmBtu (see HELCO's Energy Cost Adjustment (ECA) Filing effective May 1, 1997, copy attached as P-3 and P-4).
5. Calculations regarding operation of the Facility are for illustrative purposes only; simple cycle operation of 2 CTs is not expected in normal operations.

A. Calculation of Fuel Component_{BASE} and Fuel Component

15-min. period ending	Facility Dispatch CT1 or CT2 (Applicable Equation)	Integrated Load (L) (kW)	kWh Purchased	Fuel Component _{BASE} rate (\$/kWh) (Applicable Equation) (rounded to 6 decimal places)	Fuel Component _{BASE} (\$) (rounded to 6 decimal places)
0015	1 CT CC CT1 (Equation 3)	11,000	2,750	0.050358 (Equation 3)	138.484500
0345	1 CT SC CT1 (Equation 5)	5,000	1,250	0.083555 (Equation 5)	104.443750
0500	2 CT SC CT1 CT2 (Equation 6)	13,000 7,000 6,000	3,250 1,750 1,500	0.075810 0.079552 (Equations 5)	251.995500 132.667500 119.328000
1600	2 CT CC CT1 + ST CT2 + ST (Unequal dispatch requested; Equation 7)	56,000 29,000 27,000	14,000 7,250 6,750	0.038074 0.037845 (Equations 3)	531.490250 276.036500 255.453750
1830	2 CT CC (Equation 1)	60,000	15,000	0.034918 (Equation 1)	523.770000
2315	2 CT CC (Dispatch between 16 and 24 MW; Equation 2)	23,000	5,750	0.043774 (Equation 2)	251.700500

Total kWh purchased from facility = 42,000 kWh
Total Fuel Component_{BASE} = \$1,801.884500
Fuel Component = Fuel Component_{BASE} x FacilityPRICE / Fuel_{BASE}
= \$1,801.884500 x 5.9984 / 4.35324
= \$2,482.85

B. Calculation of Variable O&M Component_{BASE} and Variable O&M Component

- (i) Calculation of Variable Component
Variable Component = \$0.00092/kWh x 42,000 kWh = \$38.640000 (1995 \$)
- (ii) Calculation of Overhaul Component
Total CT1 operating hours (from Part A) = 1.5 hours
Total CT2 operating hours (from Part A) = 1.0 hour
CT1 Overhaul Component = \$103.43/hour x 1.5 hours = \$155.145000 (1995 \$)
CT2 Overhaul Component = \$103.43/hour x 1.0 hour = \$103.430000 (1995 \$)
Total Overhaul Component = \$258.575000 (1995 \$)

Variable O&M Component_{BASE} = Variable Component + Overhaul Component = \$297.215000 (1995 \$)
Variable O&M Component = Variable O&M Component_{BASE} x GDPIPD_{CURRENT} / GDPIPD_{BASE}
= \$297.215000 x 109.9 / 107.8 = \$303.00

C. Calculation of Energy Charge

Energy Charge = (Fuel Component + Variable O&M Component) x (.98)
= (2,482.85 + 303.00) x (.98)
= \$2,730.13

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ECA

CHMENT 2

EXHIBIT A
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HAWAII ELECTRIC LIGHT COMPANY, INC.
ENERGY COST ADJUSTMENT (ECA) FILING

Line			Line	PURCHASED ENERGY COMPONENT	
1	Effective Date	May 1, 1997		PURCHASED ENERGY PRICE, \$/kwh	
	Supercedes Factors of	April 21, 1997	27	HCPC (Contract)-Off Peak	5.180
			28	- On Peak	5.210
			29	Not Used	0.000
			30	PGV - Off Peak	5.470
			31	- On Peak	6.610
			32	PGV - Off Peak Addl Contract	3.828
			33	- On Peak Addl Contract	4.829
			34	Waikuku Hydro - Off Peak	5.970
			35	- On Peak	7.240
			36	Other (>100 KW)-Off Peak	5.987
			37	- On Peak	7.247
			38	Other (<100 KW)	5.950
				PURCHASED ENERGY KWH MIX, %	
			39	HCPC (Contract)-Off Peak	11.98
			40	- On Peak	16.77
			41	Not Used	0.00
			42	PGV - Off Peak	21.84
			43	- On Peak	30.59
			44	PGV - Off Peak Addl Contract	0.00
			45	- On Peak Addl Contract	6.44
			46	Waikuku Hydro - Off Peak	3.56
			47	- On Peak	4.98
			48	Other (>100 KW)-Off Peak	1.25
			49	- On Peak	2.58
			50	Other (<100 KW)	0.03
					100.00
			51	COMPOSITE COST OF PURCHASED ENERGY, \$/kwh	6.022
			52	% Input to System kwh Mix	41.87
			53	WEIGHTED COMP. PURCH. ENERGY COST, \$/kwh (lines (51x52))	2.52743
			54	BASE PURCHASED ENERGY COMPOSITE COST, \$/kwh	5.940
			55	Base % Input to Sys kwh Mix	38.45
			56	WEIGHTED BASE PURCH ENERGY COST, \$/kwh (lines (54x55))	2.28393
			57	COST LESS BASE(line(53-56))	0.24350
			58	Loss Factor	1.091
			59	Multiplier to Include Revenue Tax Requirement	1.0975
			60	PURCHSD ENERGY FCTR, \$/kwh (lines (57x58x59))	0.29156

LINE SYSTEM COMPOSITE

61	FUEL AND PURCHASED ENERGY FACTOR, \$/kwh (lines (26+60))	0.23269
62	HCPC Amendment #3, \$/kwh	0.000
63	Not Used	0.000
64	ECA Reconciliation Adjustment	0.185
65	ECA FACTOR, \$/kwh (line(61+62+63+64))	0.418

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Prices with PGV Addl

ATTACHMENT EXHIBIT A
SHEET 1 OF 8 PAGE 158 OF 169

HELCO Fuel Oil Inventory Prices For

May-97

INDUSTRIAL FUEL COSTS:

Average Industrial Fuel Cost - \$/BBL
Land Transportation Cost - \$/BBL

Industrial Costs For Filing - \$/BBL
Conversion Factors - mmbtu/BBL

Industrial Costs For Filing - \$/mmbtu

<u>HILO</u>	<u>PUNA</u>
19.5261	19.5261
--	0.7722
19.5261	20.2983
6.30	6.30
309.94	322.20

DIESEL FUEL COSTS:

Average Diesel Fuel Cost - \$/BBL
Land Transportation Cost - \$/BBL

Diesel Costs For Filing - \$/BBL
Conversion Factors - mmbtu/BBL

Diesel Costs For Filing - \$/mmbtu

<u>KEAHOLE</u>	<u>WAIMEA</u>	<u>HILO</u>	<u>PUNA CT-3</u>
33.0368	33.0368	33.0368	33.0368
2.1121	1.6047	0.7031	0.7638
35.1509	34.6435	33.7419	33.8026
5.88	5.88	5.88	5.88
589.84	591.19	575.80	576.84

PURCHASED POWER:

HCPC (Contract Energy) rate for

2nd Qtr

- off peak
- on peak

5.150 \$/kwh
6.210 \$/kwh

HCPC Floor

4.510 \$/kwh
5.410 \$/kwh

PGV

2nd Qtr

- off peak
- on peak

5.470 \$/kwh
6.610 \$/kwh

PGV Floor

5.430 \$/kwh
6.580 \$/kwh

PGV Additional Contract eff. 5/1/97

- off peak
- on peak

3.829 \$/kwh
4.829 \$/kwh

3.325 \$/kwh
4.325 \$/kwh

WAILUKU HYDRO

2nd Qtr

- off peak
- on peak

5.970 \$/kwh
7.240 \$/kwh

Wailuku Floor

5.970 \$/kwh
7.240 \$/kwh

Other: (<100 KW)

5.950 \$/kwh

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ATTACHMENT Q
SELLER'S PERMITS

<u>Permit</u>	<u>Agency</u>	<u>Expected Issuance Date</u>
PSD/Covered Source	DoH/EPA	February 1, 1998
NPDES, Water Discharge	DoH	February 1, 1998
Well Permit	DLNR/DWR	June 30, 1997
Special Use Permit	County of Hawaii	June 30, 1997

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ATTACHMENT R
INTENTIONALLY OMITTED

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R-1

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ATTACHMENT S
HELCO's SCHEDULE "J" TARIFF

Superseding Revised Sheet No. 52B
Effective January 1, 1995

REVISED SHEET NO. 52B
Effective February 21, 1995

SCHEDULE "J"

General Service Demand

Availability:

Applicable to general light and/or power loads which exceed 5000 kilowatthours per month or 25 kilowatts three times within a twelve-month period, and supplied through a single meter.

Service will be delivered at secondary voltages as specified by the Company, except where the nature or location of the customer's load makes delivery at secondary voltage impractical, the Company may, at its option, deliver the service at a nominal primary voltage as specified by the Company. Service supplied at primary voltage shall be subject to the special terms and conditions set forth below.

Rate:

CUSTOMER CHARGE:

Single phase service - per month	\$31.00
Three phase service - per month	\$53.00

DEMAND CHARGE: (To be added to Customer Charge)

All Kw of billing demand - per Kw	\$5.60
---	--------

ENERGY CHARGE: (To be added to Customer and Demand Charges)

First 200 Kwhr/month/Kw of billing demand - per Kwhr ..	13.7791¢
Next 200 Kwhr/month/Kw of billing demand - per Kwhr ..	11.5621¢
Over 400 Kwhr/month/Kw of billing demand - per Kwhr ..	10.5611¢

Energy Cost Adjustment Clause:

The energy cost adjustment provided in the Energy Cost Adjustment Clause shall be added to the Customer, Demand, and Energy Charges.

Integrated Resource Planning Cost Recovery Surcharge:

The Integrated Resource Planning Cost Recovery Surcharge shall be added to the Customer, Demand, and Energy Charges, and energy cost adjustment.

Minimum Charge:

The monthly minimum charge shall be the sum of the Customer and

HAWAII ELECTRIC LIGHT COMPANY, INC.

Docket No. 7764
Decision and Order Nos. 13762 and 13773

Superseding Revised Sheet No. 52C
Effective October 9, 1992

REVISED SHEET NO. 52C
Effective February 21, 1995

Schedule "J" (Continued)

the Demand Charges. The Demand Charge shall be computed with the above demand charge applied to the kilowatts of billing demand, but not less than \$140.00 per month. The kilowatts of billing demand for the minimum charge calculation each month shall be the highest of the maximum demand for such month, the greatest maximum demand for the preceding eleven months, or 25 kw.

Determination of Demand:

The maximum demand for each month shall be the maximum average load in kilowatts during any fifteen-minute period as indicated by a demand meter. The kilowatts of billing demand for each month shall be the highest of the maximum demand for such month, but not less than 75% of the greatest maximum demand for the preceding eleven months, nor less than 25 kilowatts.

Power Factor:

For customers with maximum measured demands in excess of 200 kilowatts per month for any one time within a twelve-month period, the following power factor adjustment will apply to the above energy and demand charges.

The above energy and demand charges are based upon an average monthly power factor of 85%. For each 1% the average power factor is above or below 85%, the energy and demand charges as computed under the above rates will be decreased or increased, respectively, by 0.10%.

The average monthly power factor will be determined from the readings of a Kwhr meter and kvarh meter, and will be computed to the nearest whole percent and not exceeding 100% for the purpose of computing the adjustment. The kvarh meter shall be ratcheted to prevent reversal in the event the power factor is leading at any time.

Primary Supply Voltage Service:

Where, at the option of the Company, service is delivered and metered at the primary supply line voltage of 2400 volts or more, the energy and demand charges as computed under the above rates will be decreased by 5.0%. When customers' transformers are adjacent to the delivery point, the Company may permit the customer to be

HAWAII ELECTRIC LIGHT COMPANY, INC.

Docket No. 7764
Decision and Order Nos. 13762 and 13773

SHEET NO. 52D
Effective February 21, 1995

Schedule "J" (Continued)

metered at a single point on the secondary side of his transformers where such point is approved by the Company. When the energy is metered on the secondary side of the customers' transformers, the above energy and demand charges will be decreased by 4%.

Rules and Regulations:

Service supplied under this rate shall be subject to the Rules and Regulations of the Company.

HAWAII ELECTRIC LIGHT COMPANY, INC.

Docket No. 7764
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ATTACHMENT T
FORM OF GUARANTEE

T-1

GUARANTEE AGREEMENT

between

ENSERCH CORPORATION

and

HAWAII ELECTRIC LIGHT COMPANY, INC.

THIS GUARANTEE AGREEMENT ("Guarantee") is made this _____ day of _____, 1997 by and between HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), a Hawaii corporation, with principal offices in Hilo, Hawaii, and ENSERCH CORPORATION ("Guarantor"), a Texas corporation, with principal offices in Dallas, Texas.

WITNESSETH:

WHEREAS, HELCO is a regulated public utility engaged in the business of generation, transmission and distribution of electric power to customers on the island of Hawaii, Hawaii; and

WHEREAS, Encogen Hawaii, L.P., a Delaware limited partnership, with principal offices in Dallas, Texas doing business in Hawaii ("SELLER"), is an affiliate of Guarantor; and

WHEREAS, concurrently herewith, SELLER and HELCO have entered into a Power Purchase Agreement, dated as of _____, 1997 (the "Agreement"), whereby SELLER will construct, operate and maintain a 60 MW (net) cogeneration facility (the "Facility") at Haina, Hawaii and HELCO will purchase the electric output from the Facility over a period of thirty (30) years; and

WHEREAS, HELCO is willing to enter into the Agreement only if the Guarantor enters into this Guarantee with HELCO; and

WHEREAS, to induce HELCO to enter into the Agreement, Guarantor is willing to enter in this Guarantee with HELCO.

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor hereby represents, warrants, covenants and agrees with HELCO as follows:

1. Definitions. All capitalized terms used herein and not defined herein, and which are defined in, or by reference in, the Agreement, as the Agreement may be amended from time to time in accordance with its terms, shall have the meanings specified in the Agreement.

2. Guarantee.

a. Subject to the limitations contained in Section 3, Guarantor hereby guarantees to HELCO the due and punctual payment, as and when due, of fifty percent (50%)(the "Proportionate Share") of all sums payable by SELLER to HELCO as the result of the non-performance of obligations under the Agreement or other events or circumstances during the term of the Agreement. This Guarantee is one of two identical Guarantees being provided by Guarantor and J.A. Jones, Inc. in accordance with Section 21.1 of the Agreement, each of which constitutes a several, not joint, obligation of Guarantor and J.A. Jones, respectively, with respect to any sums payable by SELLER to HELCO under the Agreement. In no event shall HELCO have recourse against Guarantor in excess of the lesser of its Proportionate Share of SELLER's payment obligations or the limits set forth in Section 3 below.

b. This Guarantee is a primary and original obligation of Guarantor and is an absolute, unconditional, continuing and irrevocable guarantee and is in no way conditioned or contingent upon any attempt to collect payment from or proceed against SELLER except as stated otherwise herein. This Guarantee shall remain in full force and effect until the earlier to occur of the following events: (i) all of SELLER's obligations under the Agreement including, without limitation, any obligations for breach thereof, have been fulfilled; (ii) this Guarantee has been substituted for in accordance with Section 21.1 of the Agreement; or (iii) the termination of the Agreement; provided that obligations arising prior to such termination date shall survive such termination. Any notice required to be given by HELCO to SELLER under the Agreement shall also be given by HELCO to Guarantor at:

Enserch Corporation
1817 Wood Street, Suite #550-West
Dallas, Texas 75201
(214) 670-2712 (telephone)
(214) 670-2974 (facsimile)

(or such other address as Guarantor may designate in writing to HELCO). Guarantor shall have the same opportunity to cure defaults by SELLER under the Agreement as SELLER shall have; provided, however, that no time period provided in the Agreement for cure shall be extended or start anew by virtue of this sentence.

In the event that the Agreement shall be terminated as a result of the rejection or disaffirmance thereof by any trustee, receiver or liquidating agency of SELLER or any of its properties, in any assignment for the benefit of creditors or any bankruptcy, insolvency, reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar

proceeding, Guarantor's obligations hereunder shall continue to the same extent as if such Agreement had not been so rejected or disaffirmed. Guarantor shall, and does hereby waive all rights and benefits which might relieve, in whole or in part, Guarantor from the performance of its duties and obligations hereunder by reason of any such proceeding, and Guarantor agrees that it shall be liable for all sums and obligations guaranteed by this Guarantee without regard to any modification, limitation or discharge of the liability of SELLER that may result from any such proceeding.

3. Guarantee Limits. Guarantor's obligations under Section 2(a) hereof in the aggregate shall be limited to the amounts shown below with respect to sums as payable by SELLER to HELCO pursuant to the Agreement as the result of events or circumstances during the period shown opposite such amounts:

<u>Period</u>	<u>Amount*</u>
Until PUC Approval	\$ -0-
From PUC Approval through Closing Date	\$100,000
From Closing Date through the Phase 2 In-Service Date	\$500,000
From Phase 2 In-Service Date to end of Term	\$1,500,000

*Guarantor's obligations in any given period shall be reduced by any amounts paid by Guarantor with respect to such obligations in all preceding periods.

As used above "PUC Approval" shall mean the date that the PUC order referred to in Section 23.14 of the Agreement becomes final and non-appealable.

4. Generally. Guarantor shall not be liable under Section 2 of this Guarantee to any extent greater than if it had been the contracting party (in place of SELLER) under the Agreement, and all the representations and warranties made by Guarantor in Section 5 hereof in respect of this Guarantee were true in respect of the Agreement as well as the Guarantee and notwithstanding any bankruptcy or insolvency of SELLER. In addition, Guarantor shall have no obligation under Section 2(a) of this Guarantee for any claim for payment, performance or otherwise attributable to events or circumstances during the period prior to the Phase 2 In-Service Date, not asserted by HELCO in writing within one hundred eighty (180) days after the Phase 2 In-Service Date.

5. Representations and Warranties. Guarantor represents and warrants as follows:

a. Guarantor has full power, authority and legal right to execute and deliver and perform its obligations under this Guarantee. This Guarantee has been duly executed and delivered by Guarantor and constitutes a legal, valid and binding obligation of Guarantor, enforceable in accordance with its terms, except to the extent that such enforcement may be

limited by any bankruptcy, reorganization, insolvency, moratorium or similar laws affecting generally the enforcement of creditors' rights from time to time in effect and general principles of equity.

b. No consent, authorization or approval of, or filing with, any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, is or has been required in respect of Guarantor in connection with the execution, delivery or performance by Guarantor of this Guarantee, or the compliance by Guarantor with any of the remedies and provisions hereof.

c. The execution and delivery of, and performance by Guarantor of its obligations under this Guarantee will not result in a violation of, or be in conflict with, any provision of the articles of incorporation or bylaws of Guarantor, or result in a violation of, or be in conflict with, or constitute a default or any event which would, with notice or lapse of time, or both, become a default under, any mortgage, indenture, contract, agreement or other instrument to which Guarantor is a party or by which it or its property is bound, or result in a violation of, or be in conflict with, or result in a breach of, any term or provision of any judgment, order, decree or award of any court, arbitrator or governmental or public instrumentality binding upon Guarantor or its property, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.

d. Guarantor is not in default, and no conditions exists which, with notice of lapse of time, or both, would constitute a default by Guarantor under any mortgage, loan agreement, deed or trust, indenture or other agreement with respect thereto, evidence of indebtedness or other instrument of a material nature, to which it is party or by which it is bound, or in violation of, or in default under, any rule, regulation, order, writ, judgment, injunction or decree of any court, arbitrator or federal, state, municipal or other governmental authority, commission, board, bureau, agency, or instrumentality, domestic or foreign, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.

e. There is no action, suit, proceeding, inquiry or investigation, at law or in equity, or before or by any court, public board or body, pending against Guarantor, or of which Guarantor has otherwise received official notice, of which to the knowledge of Guarantor is threatened against Guarantor, wherein an adverse decision, ruling or finding would have a material adverse effect on the Guarantor's financial position or its ability to perform its obligations under this Guarantee.

f. All agreements, representations and warranties contained herein or made in writing by or on behalf of Guarantor in connection with the transaction contemplated hereby shall survive the execution and delivery of this Guarantee.

6. Notice. Guarantor shall give written notice to HELCO and SELLER within ten (10) days after (i) the occurrence of any event or circumstance that results in any of the representations and warranties made by Guarantor in Section 5 ceasing to be accurate, or (ii) the occurrence, with respect to Guarantor, of any of the events specified in paragraphs (10) or (11) of Section 7.1A of the Agreement as constituting an Event of Default upon the occurrence thereof with respect to SELLER. Such notice shall describe, with reasonable particularity, the event or circumstance that has caused such result and shall specify the effect thereof on all representations and warranties of Guarantor that are affected thereby.

7. Miscellaneous

a. Severability. If any term or provision of this Guarantee or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this guarantee, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Guarantee shall be valid and enforceable to the fullest extent permitted by law.

b. No Waiver. Except as specifically provided otherwise herein, the failure of either party to enforce at any time any of the provisions of this Guarantee, or to require at any time performance by the other party of any of the provisions thereof, shall in no way be construed to be a waiver of such provision, nor in any way to affect the validity of this Guarantee or any part hereof, or the right of such party thereafter to enforce every such provision.

c. Modification. No modification or waiver of all or any part of this Guarantee shall be valid unless it is reduced to writing and signed by both parties.

d. Governing Law and Interpretation. Interpretation and performance of this Guarantee shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

e. Counterparts. This Guarantee may be executed in several counterparts and all such executed counterparts shall constitute one agreement, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

f. Successors and Assigns. This Guarantee shall be binding upon Guarantor and its successors and assigns and all persons claiming under or through Guarantor or any such successor or assigns, and shall inure to the benefit of, and be enforceable by, HELCO.

EXHIBIT A
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g. Consolidation. In the event that HELCO brings an action to enforce this Guarantee during the pendency of any proceeding (arbitration or otherwise) between HELCO and SELLER, Guarantor shall have the option to join such enforcement action with any such pending proceeding. Moreover, Guarantor shall have the option to join any such proceeding first brought against Guarantor with any subsequent proceeding brought against SELLER. In each of the cases described above, such joinder option shall extend until such time as a final judgment is rendered in the relevant proceeding.

IN WITNESS WHEREOF, HELCO and Guarantor have caused this Guarantee to be executed by their respective duly authorized officers as of the date first above written.

HELCO: HAWAII ELECTRIC LIGHT COMPANY, INC.

By _____
Its _____

By _____
Its _____

Guarantor: ENSERCH CORPORATION

By _____
Its Vice President and Treasurer

By _____
Its President *J*

EXECUTION COPY

INTERCONNECTION AGREEMENT

between

ENCOGEN HAWAII, L.P.

and

HAWAII ELECTRIC LIGHT COMPANY, INC.

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INTERCONNECTION AGREEMENT

This INTERCONNECTION AGREEMENT (this "Agreement"), is made as of this 22nd day of October, 1997, between ENCOGEN HAWAII, L.P., a Delaware limited partnership with its principal offices in Dallas, Texas ("SELLER"), and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation with its principal offices in Hilo, Hawaii ("HELCO").

RECITALS:

A. SELLER and HELCO have entered into a certain Power Purchase Agreement dated as of October 22, 1997 (the "Power Purchase Agreement" or "PPA"), pursuant to which SELLER will sell to HELCO electric output from an approximately 60-megawatt diesel oil-fired power production facility (the "Facility") to be constructed in Haina, Hawaii.

B. In order to permit a flow of electricity between the Facility and HELCO's existing electric system, certain interconnection facilities need to be constructed, all as more particularly described on Schedule 1 attached to this Agreement (collectively, the "Interconnection Facilities").

C. Pursuant to Decision and Order No. 15053 ("D&O No. 15053") issued by the Hawaii Public Utilities Commission ("PUC"), HELCO is required to design, procure and construct a new sixty-nine (69) kilovolt (kV) transmission line from Keamuku to the New Switching Station, all as more particularly described on Schedule 2 attached to this Agreement (the "New Transmission Line") and SELLER is required to make certain payments to HELCO in connection with the New Transmission Line.

D. SELLER and HELCO desire to set forth their respective responsibilities for the design, engineering, construction, ownership, operation and maintenance of the Interconnection Facilities, and certain costs and obligations associated therewith, and their respective responsibilities concerning the New Transmission Line pursuant to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the foregoing recitals, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each of SELLER and HELCO agrees as follows:

AGREEMENT

1. Definitions. Unless otherwise defined herein, all capitalized terms used in this Agreement shall have the meanings assigned to such terms in the Power Purchase Agreement.

- (a) "Baseline Interconnection Configuration" shall have the meaning set forth in Section 6(b).
- (b) "Contractors" shall have the meaning set forth in Section 2(b).
- (c) "Independent Engineer" shall have the meaning set forth in Section 10(a).
- (d) "New Switching Station" shall mean the new switching station to be designed and constructed by SELLER and transferred to HELCO as depicted in Exhibit 1 to Schedule 1 attached to this Agreement.
- (e) "Plans" shall have the meaning set forth in Section 2(c).
- (f) "Point of Interconnection" shall mean the point at the New Switching Station side of the high side step up transformer isolating switch, as depicted on the interconnection diagram attached as Exhibit 1 to Schedule 1 to this Agreement.
- (g) "Reconductoring Costs" shall have the meaning set forth in Section 10.
- (h) "Residual Payment Amount" shall have the meaning set forth in Section 7(b).
- (i) "Scope of Work" shall have the meaning set forth in Section 10(b).
- (j) "Specifications" shall have the meaning set forth in Section 10(b).
- (k) "Standards" shall have the meaning set forth in Section 2(c).
- (l) "Transfer Date" shall have the meaning set forth in Section 7(a).

2. Design, Engineering and Construction of Interconnection Facilities.

- (a) SELLER shall be responsible for the design, engineering and construction of the Interconnection Facilities.
- (b) SELLER may, at its option, engage third party consultants or contractors (the "Contractors") to perform its obligations hereunder; provided that SELLER's selection of any Contractor shall be subject to HELCO's prior approval, which approval shall not be unreasonably withheld.
- (c) The design and engineering plans (the "Plans") of SELLER regarding the Interconnection Facilities shall comply with (i) all applicable laws; (ii) HELCO's

design specifications and construction standards listed on Schedule 3 and (iii) Good Engineering and Operating Practices (collectively, the "Standards"). Unless otherwise agreed to by the parties, HELCO shall have twenty (20) days following receipt of SELLER's Plans for its review, comment and verification that the Plans comply with the Standards, which verification shall not be unreasonably withheld. HELCO shall be deemed to have waived its right to review and comment under this Section 2(c) and to have given its verification with respect to such Plans if it fails to exercise its rights within such twenty (20) day period. If HELCO reasonably determines that SELLER's Plans are not in accordance with the Standards, then it may request in writing a response from SELLER to its comments and SELLER shall respond in writing within twenty (20) days of such request by providing (i) its justification for why its Plans conform to the standards or (ii) changes in the Plans responsive to HELCO's comments and in accordance with the Standards.

(d) SELLER shall permit HELCO to inspect the construction of its Interconnection Facilities at all reasonable times during normal business hours and upon prior notice to its designated contact, which if oral shall be promptly documented in writing. SELLER shall also provide HELCO with monthly progress reports on the status of the construction. At HELCO's reasonable request, SELLER shall provide HELCO an opportunity to meet with appropriate personnel and any contractors to discuss and assess any such progress report.

(e) Construction of the Interconnection Facilities shall be completed and the Interconnection Facilities shall be demonstrated to be commercially operable by the Phase I In-Service Date Deadline, as extended for Force Majeure. In the event that SELLER fails to complete the Interconnection Facilities by such date, and the components not completed are necessary to SELLER's eligibility to receive Capacity Charge payments under Article V of the Power Purchase Agreement, HELCO shall have no obligation to make such Capacity Charge payments until such work is completed and the conditions of Article V of the Power Purchase Agreement are satisfied.

(f) HELCO and SELLER shall cooperate in good faith to coordinate tie-in of the Interconnection Facilities to HELCO's electrical system.

3. Governmental Approvals. SELLER shall obtain all required permits, licenses, approvals and other governmental authorizations (the "Governmental Approvals") required to construct, own and operate the Interconnection Facilities prior to the Transfer Date. HELCO shall obtain all other Governmental Approvals required, if any, to maintain and operate the Interconnection Facilities on and after the Transfer Date. On or before the Transfer Date, SELLER shall provide HELCO with copies of all such permits and approvals obtained by SELLER regarding the construction, ownership or operation of the Interconnection Facilities.

4. Easements and Rights-of-Way, Etc. SELLER shall obtain all easements and rights-of-way on the Site and on any other affected property which are required to construct, maintain and operate the Interconnection Facilities. At HELCO's request, SELLER shall use reasonable efforts to obtain perpetual easements; provided, that, HELCO shall pay or reimburse SELLER for any incremental costs incurred by SELLER in connection therewith. Such

easements and rights of way shall not contain terms and conditions which are not commercially reasonable and shall be provided in advance to HELCO for its review. Furthermore, to the extent the existing easement or right of way relating to SELLER's two one-mile lines are not adequate to also accommodate the corresponding segment of HELCO's New Transmission Line, SELLER shall use reasonable efforts to obtain the additional necessary easement; provided that HELCO shall pay or reimburse SELLER for any incremental costs incurred by SELLER in connection therewith.

5. Operation and Maintenance. SELLER shall operate and maintain, at its cost, the Interconnection Facilities prior to the Transfer Date. On and after the Transfer Date, HELCO shall own, operate and maintain the Interconnection Facilities. So long as the Interconnection Facilities are dedicated exclusively to SELLER, SELLER shall reimburse HELCO for all reasonable and routine operation and maintenance expenses of such facilities, subject to review and approval by SELLER, which approval shall not be unreasonably withheld. In the event HELCO taps off the lines or New Switching Station included in the Interconnection Facilities, for its benefit or the benefit of other parties (including, without limitation, other nonutility generators), HELCO or such other party shall share proportionately in the operation and maintenance expenses for that specific portion of the Interconnection Facilities. HELCO shall operate and maintain, at its cost, the remainder of the HELCO transmission system, including without limitation, the New Transmission Line.

6. Payment for the Interconnection Facilities.

(a) SELLER shall bear the cost of design, engineering and construction of the Interconnection Facilities. SELLER shall reimburse HELCO for the reasonable out-of-pocket costs for any work which may be done on such Interconnection Facilities by HELCO or its Contractors pursuant to this Agreement or at SELLER's request.

(b) HELCO shall, at SELLER'S option, reimburse SELLER or pay for any and all reasonable incremental costs which SELLER incurs or would incur relating to the Interconnection Facilities which are incurred to tie-in the New Transmission Line or which are necessary to accommodate the New Transmission Line, including without limitation the costs of any additional breakers, additional easements or rights of way, or the incremental costs of additional poles or the use of steel poles in lieu of wood poles, and any costs associated therewith. For purposes of this Agreement, such "incremental costs" shall include, without limitation, all procurement and construction costs above and beyond those that would normally be incurred in accordance with custom in the power generation industry in connection with a four-line (element) breaker and one half configuration, based on six breakers and two transformers (the "Baseline Interconnection Configuration"). SELLER shall bear any additional design costs associated with modification of the Baseline Interconnection Configuration to accommodate the New Transmission Line.

7. Transfer of Ownership/Title.

(a) Following completion of the construction of the Interconnection Facilities (but prior to the Phase 1 In-Service Date Deadline, as extended for Force Majeure), SELLER shall transfer (such transfer date, the "Transfer Date") to HELCO all of SELLER's right, title and interest in and to the Interconnection Facilities to the extent that such facilities were constructed and owned by SELLER. In connection with the transfer of the Interconnection Facilities, SELLER shall transfer and assign to HELCO all applicable manufacturer's or Contractor's warranties which are assignable. The Interconnection Facilities shall be transferred by SELLER to HELCO "as is, where is" and SELLER shall not provide any warranty whatsoever regarding the Interconnection Facilities, other than the assignment of such manufacturer's or Contractor's warranties.

(b) HELCO's title and ownership of the Interconnection Facilities shall be free and clear of subcontractor liens and encumbrances, subject to the following restrictions: (1) SELLER shall reserve and shall at all times have the right to use the Interconnection Facilities (as the same may be replaced, expanded, or modified) for so long as the Facility (as the same may be replaced, expanded, or modified) continues operations at the Site; provided, that, SELLER shall have no right to use the Interconnection Facilities subsequent to the termination of the PPA or to receive the Residual Payment Amount (as defined herein) if such termination is the result of an event of default by SELLER pursuant to Sections 7.1A(4), (7), (8), (9), (12), (13), (18) or (19) of the PPA; and provided, further, that in the event the SELLER notifies HELCO that the Facility has ceased operations, HELCO shall, within thirty (30) days, pay SELLER an amount (the "Residual Payment Amount") to be determined by the parties in good faith based upon depreciated book value or salvage value of the Interconnection Facilities, whichever is greater (or by appraisal if the parties cannot agree within thirty (30) days) based upon the residual value of the Interconnection Facilities at the time the Facility ceases to operate and such right of access terminates; and (2) until such time as the Residual Payment Amount is paid and except as specifically provided otherwise in Section 8, HELCO shall not relocate the Interconnection Facilities or sell, lease or otherwise encumber such facilities without SELLER's prior written consent. SELLER's continuing right to use the Interconnection Facilities after the term of the PPA as provided herein shall not, in and of itself, create any right of access to HELCO's electrical system for purposes of wheeling to other purchasers of energy and/or capacity and shall not preclude HELCO from charging for such wheeling services to the extent permitted by law and applicable regulations.

(c) In connection with the transfer of the Interconnection Facilities to HELCO, SELLER shall, at its option, grant or transfer to HELCO such easements, rights of way, or licenses as the case may be necessary to operate and maintain the Interconnection Facilities on and after the Transfer Date.

(d) In connection with SELLER's transfer of the Interconnection Facilities, HELCO shall be responsible for and shall pay any and all expenses, costs and taxes in connection with the transfer of the Interconnection Facilities and shall indemnify and make SELLER whole for any such taxes, expenses or costs. On and after the Transfer Date, HELCO

shall be responsible for all property and other taxes associated with the ownership and operation of the Interconnection Facilities.

(e) During the term of the PPA, the Interconnection Facilities shall be dedicated primarily to accommodate the delivery of electricity by SELLER to HELCO under the PPA (or, if applicable, by HELCO to SELLER), and SELLER shall not use the Interconnection Facilities in a manner that conflicts or interferes with the performance of its obligations under the PPA.

8. Relocation of Interconnection Facilities. Should HELCO be required after the Transfer Date, pursuant to (i) terms of an applicable easement relating to such Interconnection Facilities or (ii) a request by the State of Hawaii or a county thereof in the event such Interconnection Facilities fall within Hawaii's or such county's right of way, to relocate any part of the Interconnection Facilities, SELLER shall pay or reimburse HELCO for its reasonable, out-of-pocket cost and expenses in connection with such relocation and the reconnection of the Facility with HELCO's electrical system; provided, that, HELCO shall use reasonable efforts to effect such relocation in a prompt and cost effective manner and shall, during any related disconnection of the Facility, continue to make Capacity Charge payments under the Power Purchase Agreement.

9. New Transmission Line.

(a) HELCO shall provide SELLER with monthly progress reports (or such other reports as filed by HELCO with the PUC) documenting HELCO's progress in constructing the New Transmission Line; provided, that, HELCO's obligations to purchase energy and capacity under the Power Purchase Agreement shall not be affected in any way by HELCO's failure to complete or delays in completing the New Transmission Line. HELCO shall have full responsibility for and shall bear any and all costs of such actions or equipment as may be necessary for HELCO to accept the full electrical output of the Facility. In the event that HELCO is unable to accept the full electrical output of the Facility due to its failure to take such actions, HELCO shall be obligated to pay SELLER the Capacity Charge payments to which it would have been entitled under the PPA if HELCO had taken such necessary actions.

(b) In connection with the New Transmission Line, SELLER agrees to pay HELCO an amount equal to the Reconductoring Costs (as determined pursuant to Section 10) in three (3) installments as follows:

Upon the issuance of final, non-appealable PUC Order approving the PPA:	30%
--	-----

Upon HELCO's receipt of final Environmental Impact Statement regarding the New Transmission Line:	30%
---	-----

Upon energizing and placing of the New	
--	--

Transmission Line in service: 40%

Such amounts shall be due and payable by SELLER to HELCO within thirty (30) days after SELLER's receipt of: (i) a certificate signed by a duly authorized officer of HELCO, certifying that such milestone event has occurred; and (ii) such other supporting evidence and documentation as SELLER shall reasonably request. Except as provided in this Section 9(b), SELLER shall not be responsible for any other costs related to the New Transmission Line.

(c) Upon completion of the New Transmission Line, HELCO and SELLER shall cooperate to coordinate the tie-in of the New Transmission Line with Interconnection Facilities in a manner that minimizes the interruption of the Facility operation; provided that during such interruption HELCO shall remain obligated to make Capacity Charge payments to SELLER as provided in the PPA.

10. Determination of Reconductoring Costs.

(a) The parties shall hire an independent engineer (the "Independent Engineer") from the list of qualified independent engineers set forth on Schedule 4 attached hereto to determine the cost of reconductoring HELCO's sixty-nine (69) kV transmission line from its Waimea Substation to its Honokaa substation (such cost, the "Reconductoring Costs").

(b) The scope of work to be performed by the Independent Engineer (the "Scope of Work") and the reconductoring specifications (the "Specifications") shall be mutually determined by the parties within forty-five (45) days following the PUC Submittal Date and shall be attached as Schedule 5 to this Agreement.

(c) The cost of the work to be performed by the Independent Engineer as provided in Section 10(b) shall be borne by SELLER.

(d) The Reconductoring Costs shall include only the cost of replacing the existing conductors (as of the date of this Agreement) on the Honokaa-Waimea 69 kV transmission line, including, but not limited to, normal AFUDC (as determined in accordance with custom in the power generation industry), switching costs, traffic control costs and other costs normally incurred by HELCO in such reconductoring projects, but shall exclude the costs of pole replacement, unless such pole must be replaced by a larger pole to accommodate a higher rated conductor. Replacement of deteriorated poles shall not be included in determining Reconductoring Costs unless the pole would have been replaced under the foregoing sentence regardless of its condition.

(e) The Independent Engineer's determination of the Reconductoring Costs in accordance with the Scope of Work and the Specifications shall be accepted by the parties for purposes of calculating the payment pursuant to Section 9(b), unless either party can demonstrate the existence of a material error or omission by the Independent Engineer in making such determination. In the event of a dispute regarding such determination which is not resolved within thirty (30) days, the parties shall appoint a new Independent Engineer from the list on

Schedule 4, who shall review the work performed by the first Independent Engineer and issue a determination which shall be binding on the parties. The cost of the new Independent Engineer shall be borne by both parties equally.

11. Indemnification. In connection with the performance of this Agreement, each party agrees to indemnify and hold harmless the other party from and against any and all liabilities, claims, losses, damages, or expenses, including reasonable counsel fees, whether arising before or after completion of the work hereunder, which may be incurred or sustained by the indemnified party by reason of the negligence, willful act or omission of the other party.

12. PUC Approval. The parties' respective obligations hereunder shall be contingent on HELCO's receipt of the PUC Order as defined in the PPA.

13. Assignment. The parties shall have the right to assign this Agreement to the same extent the PPA may be assigned pursuant to Article XVII thereof.

14. Dispute Resolution. Except as provided in Section 10(e), any dispute arising under this Agreement shall be resolved, if possible, by HELCO's President and SELLER's project manager, or their respective designees, and any remaining disputes shall be resolved pursuant to arbitration in accordance with the procedures set forth in Article XIV of the PPA, or in the case of a dispute under Section 2(c) hereof, under Section 2.4C of the PPA.

15. Counterparts. This Agreement may be executed in several counterparts and all so executed counterparts shall constitute one Agreement, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

16. Termination; Survival. This Agreement shall be effective upon execution and shall be co-terminous with the Power Purchase Agreement, except for Sections 7(b) and 11 which shall survive termination.

17. Governing Law and Interpretation. Interpretation and performance of this Agreement shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

18. Modification or Amendment. No modification, amendment or waiver of all or any part of this Agreement shall be valid unless it is reduced to writing and signed by both parties.

19. Notices. Except as otherwise specified in this Agreement, any notice, demand or request required or authorized by this Agreement to be given in writing to a party shall be either personally delivered or mailed by registered or certified mail (return receipt requested) postage prepaid to such party at the following address:

If to SELLER: Encogen Hawaii, L.P.

c/o Enserch Development Corporation
1817 Wood Street, Suite #550 - West
Dallas, TX 75201
Attention: Vice President - Administration
(214) 670-2712 (telephone)
(214) 670-2974 (fax)

If to HELCO: Hawaii Electric Light Company, Inc.
P.O. Box 1027
Hilo, Hawaii 96720-1027
Attention: Manager, Production (or such other person who may be
designated in writing by HELCO)

The designation of such person and/or address may be changed at any time by either party upon written notice given pursuant to the requirements of this Section 19. A notice served by mail shall be effective upon receipt.

20. No Party Deemed Drafter. No party shall be deemed the drafter of this Agreement. If this Agreement is ever construed by a court of law, such court shall not construe this Agreement or any provision hereof against any party as the drafter.

21. Headings. The paragraph headings of the various sections have been inserted in this Agreement as a matter of convenience for reference only and shall not modify, define or limit any of the terms or provisions hereof and shall not be used in the interpretation of any term or provision of this Agreement.

22. No Waiver. The failure of either party to enforce at any time any of the provisions of this Agreement, or to require at any time performance by the other party of any of the provisions hereof, shall in no way be construed to be a waiver of such provisions, nor in any way to affect the validity of this Agreement or any part hereof or the right of such party thereafter to enforce every such provision.

23. Severability. If any term or provision of this Agreement or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

24. Entire Agreement. Except to the extent covered under the PPA, this Agreement shall constitute the entire agreement between the parties with respect to interconnection of the Facility with HELCO's electrical system, and shall supersede all prior contracts, proposals, negotiations, and discussions, whether written or oral. This Agreement shall govern in the event of a conflict as to interconnection matters between this Agreement and the PPA.

IN WITNESS WHEREOF, HELCO and SELLER have caused this Agreement to be executed by their respective duly authorized officers as of the date first above written.


HELCO: HAWAII ELECTRIC LIGHT COMPANY, INC.

By: 
Its: Chairman of the Board

By: 
Its: President

SELLER: ENCOGEN HAWAII, L.P.

By: ENSERCH DEVELOPMENT CORPORATION
HAWAII, INC.
Managing General Partner

By: 
Name: Allan V. Smith
Title: Senior Vice President

LIST OF SCHEDULES

- Schedule 1 Interconnection Facilities
- Schedule 2 New Transmission Line
- Schedule 3 List of HELCO Design Specifications and Construction Standards
- Schedule 4 List of Independent Engineers
- Schedule 5 Scope of Work; Specifications

SCHEDULE 1

Interconnection Facilities

The Interconnection Facilities set forth in this Schedule 1 shall be installed to form a connection between the Facility and HELCO's electrical system. For the purposes of this Interconnection Agreement, HELCO's electrical system begins at the edge of the Honokaa - Puukapu 69-kV transmission line right-of-way (the "HELCO ROW") and adjacent to the Honokaa substation where the two, new 69-kV transmission lines from the New Switching Station shall connect (by means of a flying tap) to the existing Honokaa - Puukapu 69-kV transmission line - forming a Hamakua - Honokaa 69-kV transmission line and a Hamakua - Puukapu 69-kV transmission line. The two, new 69-kV transmission lines will be terminated onto an anchor pole (if applicable) installed by HELCO at EDC's cost within the HELCO ROW.

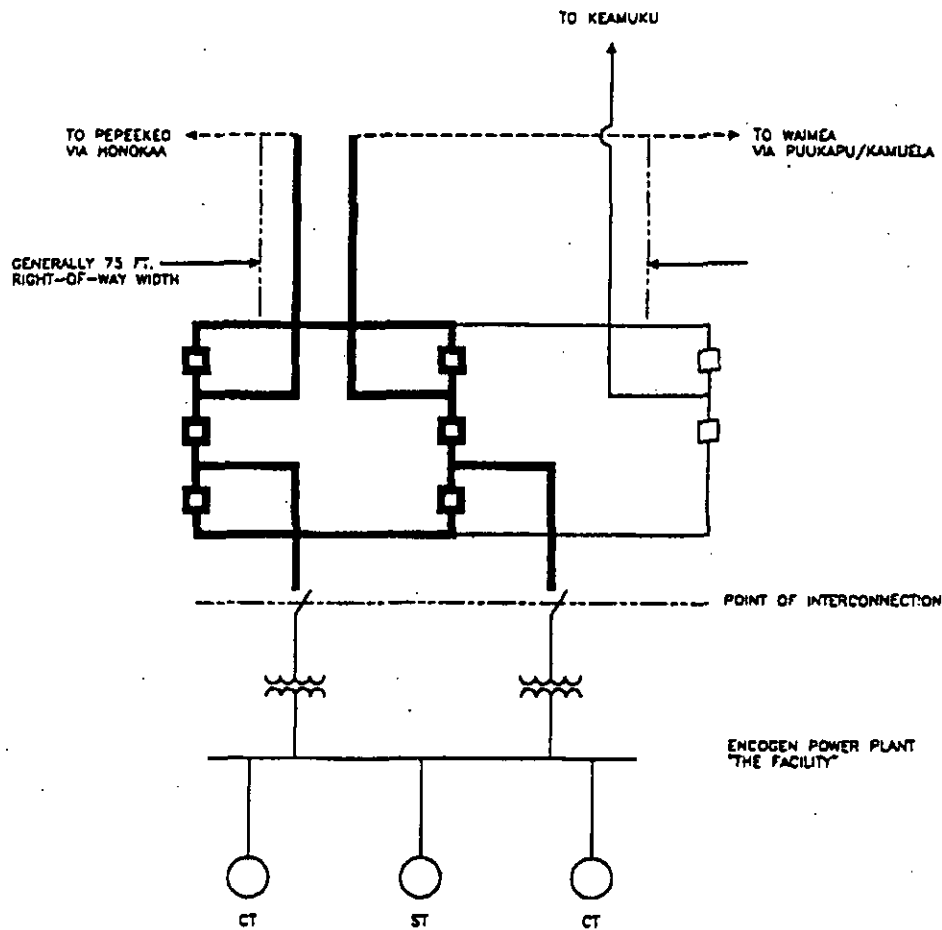
The Interconnection Facilities shall be comprised of all power system equipment installed by SELLER and other related equipment as necessary for the interconnection in conformance with the Specifications and Standards listed on Schedule 3, between the high-side switches of the Facility's 13.8/69-kV step-up transformers and HELCO's electrical system, including the following elements, as depicted in Exhibit 1:

1. The 69-kV New Switching Station, including site preparation, fencing, gates, trenching for cable placement, structures, and buswork configured initially to operate with six (6) breakers arranged in a breaker-and-a-half scheme.¹
2. One (1) 69-kV transmission line from the New Switching Station to the HELCO ROW system, approximately one (1) mile in length, referred to as the Hamakua - Honokaa 69-kV transmission line.²
3. One (1) 69-kV transmission line from the New Switching Station to the HELCO ROW system, approximately one (1) mile in length, referred to as the Hamakua - Puukapu 69-kV transmission line.
4. Six (6) 69-kV circuit breakers, and associated switches, relays, protection, and controls for the New Switching Station connection of:
 - 4.a. the Facility's two (2) 13.8/69-kV generator step-up transformers, each rated adequately to handle the entire output of the Facility;
 - 4.b. the Hamakua - Honokaa 69-kV transmission line; and

¹ The New Switching Station site preparation, fencing, and gates will be designed to accommodate a maximum of nine (9) 69-kV circuit breakers arranged in a breaker-and-a-half scheme.

² The new Hamakua-Honokaa 69-kV transmission line and the new Hamakua-Puukapu 69-kV transmission line may be supported on two, separate, wood pole lines, or on a single, steel, double-circuit tower line.

- 4.c. the Hamakua - Puukapu 69-kV transmission line.
5. In the event HELCO reasonably requests a change in the configuration from that depicted on Schedule 1, SELLER shall in good faith consider measures to accommodate HELCO's request; provided, that, HELCO shall reimburse and make SELLER whole with respect to all direct or indirect costs or loss of revenues resulting from accommodating HELCO's request.



LEGEND

- HELCO EXISTING FACILITIES
- ===== "INTERCONNECTION FACILITIES"
- "NEW TRANSMISSION LINE" FACILITIES

ENCOGEN/HELCO INTERCONNECTION AGREEMENT	
ONE LINE DIAGRAM OF INTERCONNECTION FACILITIES AND THE NEW TRANSMISSION LINE	
DATE: _____	EXHIBIT 1
BY: _____	_____

EXECUTION COPY

SCHEDULE 2

New Transmission Line

The New Transmission Line facilities shall be installed by HELCO in conformance with the Specifications and Standards listed on Schedule 3, and shall include the following elements as depicted on Exhibit 1:

1. One (1) 69-kV transmission line from the New Switching Station to HELCO's existing Keamuku substation, approximately twenty-nine (29) miles in length, referred to as the Hamakua - Keamuku 69-kV transmission line.
2. Four (4) 69-kV circuit breakers two (2) at the New Switching Station and two (2) at the Keamuku Substation, and associated switches, relays, protection, and controls for the breaker-and-a-half New Switching Station connection of the Hamakua - Keamuku 69-kV transmission line.
3. Modifications to HELCO's Keamuku substation associated with the breaker-and-a-half connection of the Hamakua - Keamuku 69-kV transmission line.
4. Reconductoring and/or rebuilding the 69-kV transmission line segments from:
 - 4.a. Keamuku substation to Puuhuluhulu substation;
 - 4.b. Puuhuluhulu substation to Puuwaawaa substation;
 - 4.c. Puuwaawaa substation to Huehue; and
 - 4.d. Huehue substation to Keahole substation.
5. Addition of twelve (12) megavars of 69-kV shunt capacitors in West Hawaii.

SCHEDULE 3

HELCO Design Specifications and Construction Standards

Hawaii Electric Light Co. Inc.'s Overhead Transmission Line Design and Construction Specifications (a copy of which is on file at the offices of HELCO and Enserch), as transmitted by HELCO to Enserch on or about October 10, 1995.

SCHEDULE 4

List of Independent Engineers

1. Mr. Mark Shaw
C. H. Guernsey & Company
5555 N. Grand Blvd.
Oklahoma City, OK 73112
405-947-5515
405-947-5542 (fax)
2. Mr. M. L. Norton
Miner & Miner Consulting Engineers, Inc.
910 27th Avenue
Greeley, CO 80631
970-352-3706
970-352-3716 (fax)
3. Sylva Engineer Corp.
1303-B Sherwood Forest
Houston, TX 77043
713-973-7329
713-973-7359 (fax)
4. R. W. Beck
2101 Fourth Avenue
Suite 600
Seattle, WA 98121-2375
206-441-7500
206-441-4962 (fax)

SCHEDULE 5

Scope of Work for Independent Engineering Services
To Estimate the Cost of Reconductoring the Honokaa-Waimea 69-kV Line

1. **Scope.** The Independent Engineer shall provide a cost estimate for the reconductoring of the existing 69-kV line between Hawaii Electric Light Company's (HELCO) Honokaa and Waimea Substations. The cost estimate shall include the labor and equipment cost of all removal of conductor, insulators and miscellaneous hardware net of material salvage value shown in HELCO's accounting property records. The cost estimate shall include labor, equipment and material cost of new poles, conductors, insulators, guys, anchors and other miscellaneous hardware required to make the facilities complete and operational. The cost estimate shall include the cost of required pole relocations and the transfer of existing distribution facilities to new and relocated poles. The reconductoring cost estimate shall not include any cost of ordinary replacement of deteriorated facilities. The Independent Engineer shall be a currently licensed Professional Engineer in the State of Hawaii.

The Independent Engineer shall utilize as the primary basis for the cost estimate at least four similar projects commenced or completed within the last 24 months. At least two such projects shall have been in the State of Hawaii, and if possible, publicly bid. The remaining two projects shall have been publicly bid. The Independent Engineer shall provide to both parties a copy of all documents and data relied upon in producing the cost estimate.

2. **References.** The independent engineer shall utilize the Standards referenced in Section 2(c) of this agreement.

3. **Materials.** The facilities shall be designed using HELCO's material standards. HELCO will provide a list of acceptable materials in use prior to commencement of work. The new conductor shall be 556.5 kcmil AAC (Dahlia). The shield wire shall be 195.7 kcmil (Amherst).

4. **Information To Be Provided to the Independent Engineer.** HELCO shall provide "as built" drawings of the existing facilities including distribution underbuild.

5. **Information To Be Provided By the Independent Engineer.** The Independent Engineer shall provide a labor and material cost estimate for the project along with a discussion of the development of the cost estimates including adjustments made. The cost estimate shall be broken down by construction units with all distribution shown as separate construction units. Prior to commencing work on the cost estimate the Independent Engineer shall also provide plan and pole framing elevation drawings for approval of both Enserch and HELCO. A bill of materials retired and a bill of materials installed shall also be provided for approval prior to commencing work on the cost estimate.

Hawaii Electric Light Company, Inc. • PO Box 1027 • Hilo, HI 96721-1027



Warren H. W. Lee, P.E.
President

January 15, 1999

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
Kekuanaoa Building
465 South King Street, 1st Floor
Honolulu, Hawaii 96813

PUBLIC UTILITIES
COMMISSION

1999 JAN 15 P 4:21

FILED

Dear Commissioners:

Subject: Docket No. 98-0013 - HELCO-Encogen PPA

This is to transmit the following documents* in the above referenced proceeding:

- Exhibit A HELCO counterpart of "Amendment No. 1 to the Power Purchase Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light Company, Inc." dated January 14, 1999.
- Exhibit B A fax of Encogen's counterpart of "Amendment No. 1 to the Power Purchase Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light Company, Inc." dated January 14, 1999.

Non-faxed copies of these documents will be provided to the Commission as soon as they are received in Hawaii.

Sincerely,

Attachments

cc: Division of Consumer Advocacy Carl R. Steen, Esq.
Jody Allione Sumner White
Gerald A Sumida, Esq.

* See HELCO letter dated December 28, 1998, in which HELCO informed the Commission that HELCO and Encogen intend to amend the PPA submitted in this proceeding.
An HEL Company

Exhibit A
Page 1 of 3

Execution Copy

AMENDMENT NO. 1
TO THE
POWER PURCHASE AGREEMENT
BETWEEN
ENCOGEN HAWAII, L.P.
AND
HAWAII ELECTRIC LIGHT COMPANY, INC.

THIS AMENDMENT NO. 1 ("Amendment") is entered as of this 14th day of January, 1999, by and between ENCOGEN HAWAII, L.P., a Hawaii limited partnership ("Encogen"), with principal offices in Dallas, Texas, and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO"), with principal offices in Hilo, Hawaii.

WITNESSETH:

WHEREAS, Encogen and HELCO are parties to a Power Purchase Agreement dated as of October 22, 1997 (the "PPA"), under which Encogen shall sell and HELCO shall purchase capacity and energy from a sixty megawatt (60 MW) (net) cogeneration facility (the "Facility") located in Haina, Hawaii; and

WHEREAS, Encogen and HELCO desire to correct and amend certain terms and provisions of the PPA by this Amendment.

NOW, THEREFORE, in consideration of the premises and the mutual agreements and covenants contained herein, the parties hereby agree as follows:

1. Amendment to Introductory Paragraph: The Introductory Paragraph of the PPA is amended by replacing the word "Delaware" in the fourth line with "Hawaii."
2. Amendment to Section 2.1D: Section 2.1D of the PPA is amended by placing a period after the word "volts" on the third line, deleting the remainder of the sentence, and adding two new sentences as follows:

"At the Metering Point, the nominal operating voltage shall be sixty-nine thousands (69,000) volts and the power factor shall be dispatchable in the range of 0.85 lagging to 0.98 leading to maintain system operating parameters as specified by HELCO. The Facility shall have a minimum net generation design capacity of sixty thousand kilowatts (60,000 kW) for the full Facility in combined cycle mode."

Exhibit A
Page 2 of 3

3. Amendment to Section 2.2B. Section 2.2B of the PPA is amended by replacing "twelve (12) months" in the third and ninth lines with "eighteen (18) months."

4. Amendment to Section 4.2A. Section 4.2A of the PPA is amended by placing a period after the term "EAF" in the second to last line, and deleting the remainder of the sentence.

5. Amendment to Section 4.2B. Section 4.2B of the PPA is amended by placing a period after the term "EFOR" in the second to last line, and deleting the remainder of the sentence.

6. Amendment to Section 8.3. Section 8.3 of the PPA is amended by inserting the word "be" after the words "each Contract Year, shall" in the fifth line.

7. Amendment to Attachment P: Sample Energy Payment Calculation: Attachment P of the PPA is amended by:

A. Replacing Assumption #2 on page P-1 with the following:

"The final 3rd quarter 1994 GDPIPD (GDPIPD BASE) is 105.2 (see Gross Domestic Product Implicit Price Deflator (1992 = 100) sheet with the fax header "FEB-27-96 TUE 04:23 PM BUREAU OF ECONOMIC ANALY FAX NO. 2026065320 P.02," copy attached as P-5)."

B. Replacing the calculation on the fifth line from the bottom on Page P-2 with the following:

"\$297.215000 x 109.9/105.2 = \$310.49"

C. Replacing the calculation on the second line from the bottom on P-2 with the following:

"= (2,482.85 + 310.49) x (.98)"

D. Replacing the calculation on the last line on P-2 with the following:

"= \$2,737.47"

E. Adding as a new page P-5 a copy of the *Gross Domestic Product Implicit Price Deflator (1992 = 100) sheet with the fax header "FEB-27-96 TUE 04:23 PM BUREAU OF ECONOMIC ANALY FAX NO. 2026065320 P.02,"* which documents that the final 3rd Quarter 1994 GDPIPD is 105.2.

8. Attachment I: Adjustment of Charges. Attachment I of the PPA is amended by replacing the third paragraph from the bottom of page I-1 with the following:

Exhibit A
Page 3 of 3

"An adjustment shall be made on each January 1 equal to one hundred percent (100%) of the percentage change between the "Final" Third Quarter GDPIPD of the year prior to the Reference Year ("GDPIPD BASE") and the previous year's Third Quarter "Final" GDPIPD value."

9. Other Terms Not Changed. Except as expressly amended by this Amendment, the PPA shall remain in full force and effect. In the event that a conflict arises between the PPA and this Amendment, this Amendment shall prevail, but the respective documents shall be interpreted to be in harmony with each other where possible.

10. Effective Date. This Amendment shall become effective as of the date first above written.

11. Counterparts. This Amendment may be executed in counterparts and all so executed shall constitute one Amendment, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

IN WITNESS WHEREOF, HELCO and SELLER have caused this Amendment to be executed by their respective duly authorized officers as of the date first above written.

HELCO: HAWAII ELECTRIC LIGHT COMPANY,
INC.

By: Edward P. Hirata
Its: Vice President

By: Molly M. Egged
Its: Secretary

SELLER: ENCOGEN HAWAII, L.P.

By: ENSERCH DEVELOPMENT
CORPORATION HAWAII, INC.
A General Partner

By: Allan V. Smith
Senior Vice President

Exhibit B
Page 1 of 3

Execution Copy

AMENDMENT NO. 1
TO THE
POWER PURCHASE AGREEMENT
BETWEEN
ENCOGEN HAWAII, L.P.
AND
HAWAII ELECTRIC LIGHT COMPANY, INC.

THIS AMENDMENT NO. 1 ("Amendment") is entered as of this 14th day of January, 1999, by and between ENCOGEN HAWAII, L.P., a Hawaii limited partnership ("Encogen"), with principal offices in Dallas, Texas, and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO"), with principal offices in Hilo, Hawaii.

WITNESSETH:

WHEREAS, Encogen and HELCO are parties to a Power Purchase Agreement dated as of October 22, 1997 (the "PPA"), under which Encogen shall sell and HELCO shall purchase capacity and energy from a sixty megawatt (60 MW) (net) cogeneration facility (the "Facility") located in Haina, Hawaii; and

WHEREAS, Encogen and HELCO desire to correct and amend certain terms and provisions of the PPA by this Amendment.

NOW, THEREFORE, in consideration of the premises and the mutual agreements and covenants contained herein, the parties hereby agree as follows:

1. Amendment to Introductory Paragraph: The Introductory Paragraph of the PPA is amended by replacing the word "Delaware" in the fourth line with "Hawaii."

2. Amendment to Section 2.1D: Section 2.1D of the PPA is amended by placing a period after the word "volts" on the third line, deleting the remainder of the sentence, and adding two new sentences as follows:

"At the Metering Point, the nominal operating voltage shall be sixty-nine thousands (69,000) volts and the power factor shall be dispatchable in the range of 0.85 lagging to 0.98 leading to maintain system operating parameters as specified by HELCO. The Facility shall have a minimum net generation design capacity of sixty thousand kilowatts (60,000 kW) for the full Facility in combined cycle mode."

Exhibit B
Page 2 of 3

3. Amendment to Section 2.2B. Section 2.2B of the PPA is amended by replacing "twelve (12) months" in the third and ninth lines with "eighteen (18) months."
4. Amendment to Section 4.2A. Section 4.2A of the PPA is amended by placing a period after the term "EAF" in the second to last line, and deleting the remainder of the sentence.
5. Amendment to Section 4.2B. Section 4.2B of the PPA is amended by placing a period after the term "EFOR" in the second to last line, and deleting the remainder of the sentence.
6. Amendment to Section 8.3. Section 8.3 of the PPA is amended by inserting the word "be" after the words "each Contract Year, shall" in the fifth line.
7. Amendment to Attachment P: Sample Energy Payment Calculation. Attachment P of the PPA is amended by:
 - A. Replacing Assumption #2 on page P-1 with the following:

"The final 3rd quarter 1994 GDPIPD (GDPIPD BASE) is 105.2 (see Gross Domestic Product Implicit Price Deflator (1992 = 100) sheet with the fax header "FEB-27-96 TUE 04:23 PM BUREAU OF ECONOMIC ANALY FAX NO. 2026065320 P.02," copy attached as P-5)."
 - B. Replacing the calculation on the fifth line from the bottom on Page P-2 with the following:

"\$297.215000 x 109.9/105.2 = \$310.49"
 - C. Replacing the calculation on the second line from the bottom on P-2 with the following:

"= (2,482.85 + 310.49) x (.98)"
 - D. Replacing the calculation on the last line on P-2 with the following:

"= \$2,737.47"
 - E. Adding as a new page P-5 a copy of the *Gross Domestic Product Implicit Price Deflator (1992 = 100) sheet with the fax header "FEB-27-96 TUE 04:23 PM BUREAU OF ECONOMIC ANALY FAX NO. 2026065320 P.02,"* which documents that the final 3rd Quarter 1994 GDPIPD is 105.2.
8. Attachment I: Adjustment of Charges. Attachment I of the PPA is amended by replacing the third paragraph from the bottom of page I-1 with the following:

Exhibit B
Page 3 of 3

"An adjustment shall be made on each January 1 equal to one hundred percent (100%) of the percentage change between the "Final" Third Quarter GDPIPD of the year prior to the Reference Year ("GDPIPD BASE") and the previous year's Third Quarter "Final" GDPIPD value."

9. Other Terms Not Changed. Except as expressly amended by this Amendment, the PPA shall remain in full force and effect. In the event that a conflict arises between the PPA and this Amendment, this Amendment shall prevail, but the respective documents shall be interpreted to be in harmony with each other where possible.

10. Effective Date. This Amendment shall become effective as of the date first above written.

11. Counterparts. This Amendment may be executed in counterparts and all so executed shall constitute one Amendment, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

IN WITNESS WHEREOF, HELCO and SELLER have caused this Amendment to be executed by their respective duly authorized officers as of the date first above written.

HELCO: HAWAII ELECTRIC LIGHT COMPANY,
INC.

By: _____

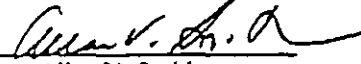
Its: _____

By: _____

Its: _____

SELLER: ENCOGEN HAWAII, L.P.

By: ENSERCH DEVELOPMENT
CORPORATION HAWAII, INC.
A General Partner

By: 
Allan V. Smith
Vice President



Warren H. W. Lee, P.E.
President

December 6, 1999

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
Kekuanaoa Building
465 South King Street, First Floor
Honolulu, Hawaii 96813

FILED
DEC-6 P 3:39
PUBLIC UTILITIES
COMMISSION

Dear Commissioners:

Subject: Docket No. 98-0013
HELCO-Encogen PPA

This is to inform the Commission that HELCO has agreed to the attached Power Purchase Agreement Novation for the Power Purchase Agreement between HELCO and Encogen Hawaii L.P. ("Encogen") dated October 22, 1997, as amended by Amendment No. 1 to the Power Purchase Agreement, dated January 14, 1999 (the "PPA"), and the Interconnection Agreement dated October 22, 1997 (the "IA"). (See Attachment 1.) HELCO's consent to an assignment of the PPA and the IA (with certain stated exceptions) is required by PPA §17.1 and IA §13. Encogen's interest in the PPA and the IA is being replaced by Hamakua Energy Partners, L.P. ("Hamakua Energy"). In addition, the Guarantee Agreement between HELCO and Enserch Corporation, dated October 22, 1997, has been replaced by the Guarantee Agreement between HELCO and TECO Energy Inc., dated November 8, 1999. (See Attachment 2.)

Hamakua Energy is a Hawaii limited partnership whose general partners are TPS Hamakua, Inc. ("TPS") (new partner) and Jones Hamakua, Inc. (no change). TPS is a Florida corporation (registered to do business in Hawaii), which is a wholly-owned subsidiary of TECO Power Services, which in turn is a wholly-owned subsidiary of TECO Energy, Inc. Hamakua Energy's limited partners are TPS Hawaii, Inc., a Florida corporation, and Jones Hawaii Power, Inc., a Hawaii corporation (also no change). TPS Hawaii, Inc. is also a wholly-owned subsidiary of TECO Power Services. The net effect of the change is that Jones Capital Corporation retains its interests in the Seller under the PPA, and the interests of Enserch Corporation (which is owned by the same holding company as Texas Utilities Company) are acquired by TECO Energy, Inc. (the same holding company for Tampa Electric Company).

According to its Form 10-K for the year ended December 31, 1998, filed with the U.S. Securities and Exchange Commission, TECO Energy Inc. ("TECO") is a Florida-based public utility holding company. TECO's significant business segments include: (1) Tampa Electric Company, (2) TECO Power Services, (3) TECO Transport Corporation, and (4) TECO Coal

The Honorable Chairman and Members of the
Hawaii Public Utilities Commission
December 6, 1999
Page 2

Corporation. Tampa Electric provides electric service to more than 537,000 customers with a net generating capability of 3,615 MWs. TECO Power Services has subsidiaries that have interest in independent power projects in Florida and Guatemala, and has investments in unconsolidated affiliates that participate in independent power projects in the U.S. and the world.

It is HELCO's understanding that the managing general partner of Hamakua Energy will be Jones Hamakua. (Enserch Development Corporation Hawaii was previously the managing general partner for Encogen.)

It is HELCO's understanding that Hamakua Energy put in place an interim financing arrangement on or about November 8, 1999. Hamakua Energy has stated that permanent financing is expected to be in place by February 2000.

While Encogen had intended to negotiate an O&M Agreement with Lone Star Energy, an affiliated corporation, Hamakua Energy has stated that the new partners will operate the plant. Other contractual arrangements will not be affected.

Sincerely,

Dan H. White

Attachments

cc: Division of Consumer Advocacy
S. White
C. DeMars
T. Lui-Kwan, Esq. / S. M. Egesdal, Esq. / I. L. Sandison, Esq.
C. R. Steen, Esq.



EXECUTION COPY

POWER PURCHASE AGREEMENT NOVATION

This POWER PURCHASE AGREEMENT NOVATION is made and entered into as of the 8th day of November, 1999, by and among Encogen Hawaii, L.P., a Hawaii limited partnership (the "Transferor"), Hamakua Energy Partners, L.P., a Hawaii limited partnership (the "Transferee") and Hawaii Electric Light Company, Inc., a Hawaii corporation (the "Counterparty") with reference to the following:

RECITALS

WHEREAS, the Transferor and the Counterparty are parties to the Power Purchase Agreement dated as of October 22, 1997 between the Counterparty and the Transferor, as amended by Amendment No. 1 to the Power Purchase Agreement dated as of January 14, 1999 (collectively, the "Power Purchase Agreement") and the Interconnection Agreement dated as of October 22, 1997 between the Counterparty and the Transferor (together with the Power Purchase Agreement, the "Contracts");

WHEREAS, the parties agree to the novation of the Contracts and to the substitution of the Transferee in place of the Transferor as a party to the Contracts upon the terms and conditions of this Agreement; and

WHEREAS, the Counterparty consents to the substitution of the Guarantee Agreement dated the same date hereof between the Counterparty and TECO Energy Inc. (the "Replacement Guarantee") in place of the Guarantee Agreement dated October 22, 1997 between the Counterparty and Enserch Corporation (the "Released Guarantee"), upon the terms and conditions of this Agreement.

NOW THEREFORE, in consideration of the mutual promises made herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the terms and conditions set forth herein, the parties agree as follows:

ARTICLE 1
NOVATION

Effective as of November 8, 1999 (the "Closing Date"):

(a) the Transferee hereby agrees to accept, observe, perform and discharge all liabilities and obligations of the Transferor howsoever and whensoever arising under the Contracts (prior to or after the date hereof) and to be bound by the terms of the Contracts in every way in place of the Transferor, and Transferee shall be liable for any default or breach of the Contracts whether such default or breach occurs prior to or after the date hereof;

(b) the Counterparty releases and discharges the Transferor from further performance under the Contracts and all liabilities, claims and demands howsoever arising under the Contracts (other than in respect of any third party claim relating to any event or circumstance arising prior to the date hereof), and agrees that the Transferee will perform and accept all the obligations and liabilities howsoever and whensoever arising under the Contracts and enjoy all the rights and benefits of the Transferor under the Contracts in place of the Transferor; and

(c) the Counterparty hereby agrees with the Transferee, in place of the Transferor, to accept, observe, perform and discharge all of its liabilities and obligations under the Contracts and be bound by the terms of the Contracts in every way.

The foregoing agreements of the Counterparty (a) shall not authorize, nor be deemed to authorize, any other or further transfer, assignment or novation of the Contracts, (b) shall not waive nor be deemed to waive any term, covenant, condition or provision of the Contracts, any other instrument in favor of the Counterparty or with respect to the Facility (as defined in the Contracts) and (c) shall not limit or restrict in any way the rights of the Transferee under the Contracts, including its rights to assign the Contracts as required by any Financing Parties (as defined in the Contracts) or in connection with any Financing Documents (as defined in the Contracts). All rights of the Counterparty under the Contracts and any other such instrument or with respect to the Facility (as defined in the Contracts) are expressly reserved.

ARTICLE 2
REPLACEMENT OF GUARANTEE

Effective as of the Closing Date, the Counterparty hereby consents to the release of the Released Guarantee and consents to the Released Guarantee being replaced by the Replacement Guarantee in satisfaction of the obligations of the Seller (as defined in the Power Purchase Agreement) under Section 21 of the Power Purchase Agreement.

ARTICLE 3
REPRESENTATIONS AND WARRANTIES

3.1 Transferor. The Transferor hereby represents and warrants (only for and as to itself, unless otherwise stated) to the Counterparty that this Power Purchase Agreement Novation has been duly and validly authorized, executed and delivered by it, and, assuming due authorization, execution and delivery thereof by each other party hereto, constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof subject, as to enforceability of remedies, to limitations imposed by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the enforcement of creditors' rights generally and to general principles of equity, whether the issue of enforceability is considered in a proceeding at law or in equity.

3.2 Transferee. The Transferee hereby represents and warrants (only for and as to itself, unless otherwise stated) to the Counterparty that this Power Purchase Agreement Novation has been duly and validly authorized, executed and delivered by it, and, assuming due authorization, execution and delivery thereof by each other party hereto, constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof subject, as to enforceability of remedies, to limitations imposed by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the enforcement of creditors' rights generally and to general principles of equity, whether the issue of enforceability is considered in a proceeding at law or in equity.

3.3 QF Requirements. The Transferee hereby represent and warrant that the transactions contemplated by this Power Purchase Agreement Novation, including the transfer of the Contracts, shall not affect compliance with the criteria for qualifying cogeneration facilities as set forth in HAR Sections 6-74-6 and 6-74-7 and 18 CFR Sections 292.205 and 292.206.

ARTICLE 4
MISCELLANEOUS

4.1 No Default. The parties hereto agree that no default or breach will occur in the performance of the Contracts as a result of the execution of this Power Purchase Agreement Novation.

4.2 Amendments and Waivers. This Power Purchase Agreement Novation may be amended, and the observance of any provision of this Power Purchase Agreement Novation may be waived, only by an instrument in writing specifically stating an intent to amend this Power Purchase Agreement Novation in a specific respect or to waive a specific provision, duly executed by or on behalf of each of the parties hereto.

4.3 Assignment. No party hereto shall assign any of its rights or delegate any of its obligations hereunder to any other Person without the prior written consent of each of the other parties hereto. Subject to the foregoing, this Power Purchase Agreement Novation shall be binding upon the parties hereto and their respective successors and assigns.

4.4 Further Assurances. Each party hereto agrees to cooperate in all reasonable respects necessary to consummate the transactions contemplated by this Power Purchase Agreement Novation and from time to time to do such acts and things and execute and deliver such documents and instruments as may reasonably be required in order to implement the transactions contemplated hereby.

4.5 Governing Law. THIS POWER PURCHASE AGREEMENT NOVATION SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF HAWAII, EXCLUDING ANY CONFLICT-OF-LAWS RULE OR PRINCIPLE THAT MIGHT REFER THE GOVERNANCE OR THE CONSTRUCTION OF THIS ACQUISITION AGREEMENT TO THE LAW OF ANOTHER JURISDICTION.

4.6 Entire Agreement. This Power Purchase Agreement Novation contains the entire understanding of the parties hereto with respect to the novation of the Contracts, matters herein and supersedes all prior agreements and understandings among the parties hereto with respect to the novation of the Contracts.

4.7 Captions. Titles or captions are inserted in this Power Purchase Agreement Novation only for convenience, and do not define, limit, extend or describe the scope of this Power Purchase Agreement Novation or the intent of any provision hereof.

4.8 Counterparts. This Power Purchase Agreement Novation may be executed in any number of counterparts and by different parties hereto on separate counterparts, but all of such counterparts together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Power Purchase Agreement Novation to be signed by their respective duly authorized officers.

TRANSFEROR:

ENCOGEN HAWAII, L.P.,
as Transferor

By: Enserch Development Corporation Hawaii,
Inc., a Texas Corporation
its partner

By: *Alan V. Smith*
Name: ALAN V. SMITH
Title: VICE PRESIDENT

By: Jones Hamakua, Inc., a Hawaii Corporation
its partner

By: _____
Name:
Title:

IN WITNESS WHEREOF, the parties hereto have caused this Power Purchase Agreement Novation to be signed by their respective duly authorized officers.

TRANSFEROR:

ENCOGEN HAWAII, L.P.,
as Transferor

By: Enserch Development Corporation Hawaii,
Inc., a Texas Corporation
its partner

By: _____
Name:
Title:

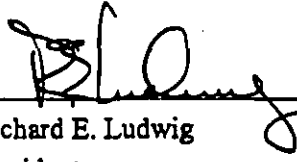
By: Jones Hamakua, Inc., a Hawaii Corporation
its partner

By: William A. Gault
Name: William A. Gault
Title: President

TRANSFeree:

HAMAKUA ENERGY PARTNERS, L.P.,
as Transferee

By: TPS Hamakua, Inc., a Florida Corporation.
its partner

By: 
Richard E. Ludwig
President

By: Jones Hamakua, Inc., a Hawaii Corporation
its partner

By: _____
Name:
Title:

TRANSFeree:

HAMAKUA ENERGY PARTNERS, L.P.,
as Transferee

By: TPS Hamakua, Inc., a Florida Corporation.
its partner

By: _____
Name:
Title:

By: Jones Hamakua, Inc., a Hawaii Corporation
its partner

By: William A. Garnett
Name: William A. Garnett
Title: President

COUNTERPARTY:

HAWAII ELECTRIC LIGHT COMPANY,
INC.
a Hawaii corporation

By: Warren H. W. Lee
Name: Warren H. W. Lee
Title: President

By: Molly M. Eged
Name: Molly M. Eged
Title: Secretary

EXECUTION COPY

GUARANTEE AGREEMENT

between

TECO ENERGY, INC.

and

HAWAII ELECTRIC LIGHT COMPANY, INC.

THIS GUARANTEE AGREEMENT ("Guarantee") is made as of this 8th day of November, 1999 by and between HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), a Hawaii corporation, with principal offices in Hilo, Hawaii, and TECO Energy, Inc. ("Guarantor"), a Florida corporation, with principal offices in Tampa, Florida.

WITNESSETH:

WHEREAS, HELCO is a regulated public utility engaged in the business of generation, transmission and distribution of electric power to customers on the island of Hawaii, Hawaii; and

WHEREAS, Hamakua Energy Partners, L.P., a Hawaii limited partnership, with principal offices in Charlotte, North Carolina doing business in Hawaii ("SELLER"), is an affiliate of Guarantor; and

WHEREAS, Encogen Hawaii, L.P., a Delaware limited partnership ("ENCOGEN") and HELCO entered into a Power Purchase Agreement, dated as of October 22, 1997 (the "Agreement"), whereby ENCOGEN was obligated to construct, operate and maintain a 60 MW (net) cogeneration facility (the "Facility") at Haina, Hawaii and HELCO was obligated to purchase the electric output from the Facility over a period of thirty (30) years; and

WHEREAS, HELCO was willing to enter into the assignment of the Agreement only if the Guarantor enters into this Guarantee with HELCO; and

WHEREAS, to induce HELCO to enter into the assignment of the Agreement, Guarantor is willing to enter in this Guarantee with HELCO.

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor hereby represents, warrants, covenants and agrees with HELCO as follows:

1. Definitions. All capitalized terms used herein and not defined herein, and which are defined in, or by reference in, the Agreement, as the Agreement may be amended from time to time in accordance with its terms, shall have the meanings specified in the Agreement.

2. Guarantee.

a. Subject to the limitations contained in Section 3, Guarantor hereby guarantees to HELCO the due and punctual payment, as and when due, of fifty percent (50%) (the "Proportionate Share") of all sums payable by SELLER to HELCO as the result of the non-performance of obligations under the Agreement or other events or circumstances during the term of the Agreement. This Guarantee is one of two identical Guarantees being provided by Guarantor and J.A. Jones, Inc. in accordance with Section 21.1 of the Agreement, each of which constitutes a several, not joint, obligation of Guarantor and J.A. Jones, Inc., respectively, with respect to any sums payable by SELLER to HELCO under the Agreement. In no event shall HELCO have recourse against Guarantor in excess of the lesser of its Proportionate Share of SELLER's payment obligations or the limits set forth in Section 3 below.

b. The Guarantee is a primary and original obligation of Guarantor and is an absolute, unconditional, continuing and irrevocable guarantee and is in no way conditioned or contingent upon any attempt to collect payment from or proceed against SELLER except as stated otherwise herein. This Guarantee shall remain in full force and effect until the earlier to occur of the following events: (i) all of SELLER's obligations under the Agreement including, without limitation, any obligations for breach thereof, have been fulfilled; (ii) this Guarantee has been substituted for in accordance with Section 21.1 of the Agreement, or (iii) the termination of the Agreement; provided, that obligations arising prior to such termination date shall survive such termination. Any notice required to be given by HELCO to SELLER under the Agreement shall also be given by HELCO to Guarantor at:

TECO Energy, Inc.
702 N. Franklin Street
Tampa, Florida 33602
(813) 228-1804 (telephone)
(813) 228-1328 (facsimile)

(or such other address as Guarantor may designate in writing to HELCO). Guarantor shall have the same opportunity to cure defaults by SELLER under the Agreement as SELLER shall have; provided, however, that no time period provided in the Agreement for cure shall be extended or start anew by virtue of this sentence.

In the event that the Agreement shall be terminated as a result of the rejection or disaffirmance thereof by any trustee, receiver or liquidating agency of SELLER or any of its properties, in any assignment for the benefit of creditors or any bankruptcy, insolvency, reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar proceeding. Guarantor's obligations hereunder shall continue to the same extent as if such Agreement had not been so rejected or disaffirmed. Guarantor shall, and does hereby waive all rights and benefits which might relieve, in whole or in part, Guarantor from the performance of

ATTACHMENT 2
PAGE 3 OF 6

its duties and obligations hereunder by reason of any such proceeding, and Guarantor agrees that it shall be liable for all sums and obligations guaranteed by this Guarantee without regard to any modification, limitation or discharge of the liability of SELLER that may result from any such proceeding.

3. Guarantee Limits. Guarantor's obligations under Section 2(a) hereof in the aggregate shall be limited to the amounts shown below with respect to sums as payable by SELLER to HELCO pursuant to the Agreement as the result of events or circumstances during the period shown opposite such amounts:

<u>Period</u>	<u>Amount*</u>
Until PUC Approval	\$-0-
From PUC Approval through Closing Date	\$100,000
From the Closing Date through the Phase 2 In-Service Date	\$500,000
From Phase 2 In-Service Date to end of Term	\$1,500,000

*Guarantor's obligations in any given period shall be reduced by any amounts paid by Guarantor with respect to such obligations in all preceding periods.

As used above, "PUC Approval" shall mean the date that the PUC order referred to in Section 23.14 of the Agreement becomes final and non-applicable.

4. Generally. Guarantor shall not be liable under Section 2 of this Guarantee to any extent greater than if it had been the contracting party (in place of SELLER) under the Agreement, and all the representations and warranties made by Guarantor in Section 5 hereof in respect of this Guarantee were true in respect of the Agreement as well as the Guarantee and notwithstanding any bankruptcy or insolvency of SELLER. In addition, Guarantor shall have no obligation under Section 2(a) of this Guarantee for any claim for payment, performance or otherwise attributable to events or circumstances during the period prior to the Phase 2 In-Service Date, not asserted by HELCO in writing within one hundred eighty (180) days after the Phase 2 In-Service Date.

5. Representations and Warranties. Guarantor represents and warrants as follows:

a. Guarantor has full power, authority and legal right to execute and deliver and perform its obligations under this Guarantee. This Guarantee has been duly executed and delivered by Guarantor and constitutes a legal, valid and binding obligation of Guarantor, enforceable in accordance with its terms, except to the extent that such enforcement may be limited by any bankruptcy, reorganization, insolvency, moratorium or similar laws affecting generally the enforcement of creditors' rights from time to time in effect and general principles of equity.

ATTACHMENT 2
PAGE 4 OF 6

b. No consent, authorization or approval of, or filing with, any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, is or has been required in respect of Guarantor in connection with the execution, delivery or performance by Guarantor of this Guarantee, or the compliance by Guarantor with any of the terms and provisions hereof.

c. The execution and delivery of, and performance by Guarantor of its obligations under this Guarantee will not result in a violation of, or be in conflict with, any provision of the articles of incorporation or bylaws of Guarantor, or result in a violation of, or be in conflict with, or constitute a default or an event which would, with notice or lapse of time, or both, become a default under, any mortgage, indenture, contract, agreement or other instrument to which Guarantor is a party or by which it or its property is bound, or result in a violation of, or be in conflict with, or result in a breach of, any term or provision of any judgment, order, decree or award of any court, arbitration or governmental or public instrumentality binding upon Guarantor or its property, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.

d. Guarantor is not in default, and no condition exists which, with notice of lapse of time, or both, would constitute a default by Guarantor under any mortgage, loan agreement, deed or trust, indenture or other agreement with respect thereto, evidence of indebtedness or other instrument of a material nature, to which it is party or by which it is bound, or in violation of, or in default under, any rule, regulation, order, writ, judgment, injunction or decree of any court, arbitration or federal, state, municipal or other governmental authority, commission, board, bureau, agency, or instrumentality, domestic or foreign, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.

e. There is no action, suit, proceeding, inquiry or investigation, at law or in equity, or before or by any court, public board or body, pending against Guarantor, or of which Guarantor has otherwise received official notice, or which to the knowledge of Guarantor is threatened against Guarantor, wherein an adverse decision, ruling or finding would have a material adverse effect on the Guarantor's financial position or its ability to perform its obligations under this Guarantee.

f. All agreements, representations and warranties contained herein or made in writing by or on behalf of Guarantor in connection with the transaction contemplated hereby shall survive the execution and delivery of this Guarantee.

6. Notice. Guarantor shall give written notice to HELCO and SELLER within ten (10) days after (i) the occurrence of any event or circumstance that results in any of the representations and warranties made by Guarantor in Section 5 ceasing to be accurate, or (ii) the occurrence, with respect to Guarantor, of any of the events specified in paragraphs (10) or (11) of Section 7.1A of the Agreement as constituting an Event of Default upon the occurrence thereof with respect to SELLER. Such notice shall describe, with reasonable particularity, the event or circumstance that has caused such result and shall specify the effect thereof on all representations and warranties of Guarantor that are affected thereby.

7. Miscellaneous.

a. Severability. If any term or provision of this Guarantee or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Guarantee, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Guarantee shall be valid and enforceable to the fullest extent permitted by law.

b. No Waiver. Except as specifically provided otherwise herein, the failure of either party to enforce at any time any of the provisions of this Guarantee, or to require at any time performance by the other party of any of the provisions thereof, shall in no way be construed to be a waiver of such provisions, nor in any way to affect the validity of this Guarantee or any part hereof, or the right of such party thereafter to enforce every such provision.

c. Modification. No modification or waiver of all or any part of this Guarantee shall be valid unless it is reduced to writing and signed by both parties.

d. Governing Law and Interpretation. Interpretation and performance of this Guarantee shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

e. Counterparts. this Guarantee may be executed in several counterparts and all such executed counterparts shall constitute one agreement, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

f. Successors and Assigns. This Guarantee shall be binding upon Guarantor and its successors and assigns and all persons claiming under or through Guarantor or any such successor or assign, and shall inure to the benefit of, and be enforceable by, HELCO.

g. Consolidation. In the event that HELCO brings an action to enforce this Guarantee during the pendency of any proceeding (arbitration or otherwise) between HELCO and SELLER, Guarantor shall have the option to join such enforcement action with any such pending proceeding. Moreover, Guarantor shall have the option to join any such proceeding first brought against Guarantor with any subsequent proceeding brought against SELLER. In each of the cases described above, such joinder option shall extend until such time as a final judgment is rendered in the relevant proceeding.


IN WITNESS WHEREOF, HELCO and Guarantor have caused this Guarantee to be executed by their respective duly authorized officers as of the date first above written.

HELCO HAWAII ELECTRIC LIGHT COMPANY, INC.

By 
Its President

By 
Its Vice President

Guarantor TECO ENERGY, INC.

By 
Gordon L. Gillette
Vice President-Finance and
Chief Financial Officer

May-25-04 20:45

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CONSENT AND AGREEMENT
CONCERNING CERTAIN ASSETS
OF JONES CAPITAL, LLC

THIS CONSENT AND AGREEMENT (the "Agreement") dated as of _____, 2004 is entered into by and among BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Black River Energy"), HAMAKUA ENERGY PARTNERS, LP, a Hawaii limited liability partnership ("HEP"), and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO").

BACKGROUND

A. Jones Capital, LLC, a Delaware limited liability company ("Jones Capital"), owns (i) 50% of the outstanding interests of Hamakua A, LLC, a Delaware limited liability company ("Hamakua A"), which owns a 98% limited partner interest in HEP, and (ii) 100% of the outstanding capital stock of Jones Hamakua, Inc, a Hawaii corporation ("Jones Hamakua"), which owns a 1% general partner interest in HEP.

B. HEP is party to that certain Power Purchase Agreement, dated as of October 22, 1997, by and between HEP and HELCO, as amended (the "PPA").

C. TPS Hawaii, Inc. owns the remaining 50% of the outstanding membership interest in Hamakua A. TPS Hamakua, Inc. owns the other 1% general partner interest in HEP. TPS Hawaii, Inc. and TPS Hamakua, Inc. are collectively referred to as the "TECO Entities".

D. Jones Capital, and its wholly-owned subsidiary, Black River Energy, have entered into a purchase agreement pursuant to which Jones Capital and Jones Hamakua have agreed through a series of transactions, to transfer all of their outstanding equity interests in each of HEP and Hamakua A (the "Interests") to Black River Energy, and Jones Capital will thereafter sell all of its membership interest in Black River Energy (the "Black River Interests") to EIF Hamakua LLC, a Delaware limited liability company ("Buyer").

E. J.A. Jones, Inc. ("Jones"), a Delaware corporation and the parent company of Jones Capital, has guaranteed HEP's performance under the PPA pursuant to a Guarantee Agreement, dated October 22, 1997, by and between Jones and HELCO (the "Jones Guarantee"). Upon closing of the transfer of the Black River Interests to Buyer, Black River Energy will provide a guarantee to HELCO substantially in the form attached hereto as Exhibit A (the "BRE Guarantee") to replace the Jones Guarantee and shall also obtain a letter of credit in favor of HELCO, issued by a bank located in the State of Hawaii (or otherwise doing business in the United States) and acceptable to HELCO, for a term of not less than one year from the date of issuance and substantially

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in the form attached hereto as Exhibit B. (A letter of credit which satisfies the requirements of the preceding sentence is referred to herein as a "Letter of Credit.")

F. Under Section 19.1 of the PPA, HELCO has certain rights of first refusal, or similar preference rights of purchase, that may be triggered or otherwise activated in the event that HEP should sell or transfer its interests in the Facility (the "HELCO Rights"). Although they do not believe that the transfer of the Interests to Black River Energy and the subsequent sale of the Black River Interests to Buyer will trigger the HELCO Rights or any requirement to obtain HELCO's consent, Jones, Jones Capital, Jones Hamakua, HEP, the TECO Entities and Buyer would like to obtain HELCO's acknowledgement and consent to the transactions described herein.

G. As part of the consideration to them for the sale of the Black River Interests to Buyer, Jones and Jones Capital would like to obtain from HELCO a termination of the Jones Guarantee and a release of Jones thereunder.

H. Although HELCO does not necessarily concur with the conclusion that the HELCO Rights will not be triggered by the transfer of the Interests to Black River Energy and the subsequent sale of the Black River Interests to Buyer, HELCO is willing to waive the HELCO Rights with respect to said transfer and said sale, to acknowledge and consent to said transfer and said sale, and to terminate the Jones Guarantee and release Jones thereunder, all on the terms and conditions set forth herein.

AGREEMENT

In light of the foregoing, the parties set forth their agreement as follows:

1. Concurrent with the sale of the Black River Interests to Buyer, Black River Energy shall (a) issue and deliver to HELCO the BRE Guarantee, and (b) cause the issuance of a Letter of Credit and deliver same to HELCO.

2. Effective concurrently with the sale of the Black River Interests to Buyer:

(a) the BRE Guarantee shall, insofar as the Guarantee issued by Black River Energy is concerned, be deemed to replace the Form of Guaranty attached to the PPA as Attachment T;

(b) all references to Guarantee and Guarantee(s) in the PPA shall, insofar as they refer to the Guarantee issued by Black River Energy, be deemed to refer to the BRE Guarantee;

(c) from the date the BRE Guarantee is to be issued and delivered to HELCO pursuant to paragraph 1 above through the thirtieth (30th) day following the period the BRE Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) of the BRE Guarantee, BRE shall maintain or caused to be maintained in full force and effect a Letter of Credit, and shall, no

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later than thirty (30) days prior to the expiration of the term of any Letter of Credit then in effect, replace or cause to be replaced such Letter of Credit by delivery to HELCO of a newly issued Letter of Credit, and any failure to maintain a Letter of Credit in full force and effect as aforesaid, including but not limited to any failure to replace a Letter of Credit no later than thirty (30) days prior to the expiration of the term thereof, shall constitute grounds for HELCO to draw down the full amount of the Letter of Credit regardless of whether or not HELCO would otherwise then be entitled to demand payment from HEP under the PPA or from Black River Energy under the BRE Guarantee, and any such amounts drawn on the Letter of Credit pursuant to this subparagraph (c) shall be (i) held by HELCO, as security for BRE's performance of its obligation to maintain the Letter of Credit as aforesaid, until such time a new Letter of Credit is issued and delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid over to BRE or its designee without interest;

(d) except in the circumstance where HELCO has drawn down the full amount of the Letter of Credit, as contemplated under the preceding subparagraph (c), any failure to maintain the Letter of Credit in full force and effect as and to the extent required under the preceding subparagraph (c) shall be deemed to be a failure by HEP to maintain the BRE Guarantee in full force and effect and, accordingly, shall constitute an "Event of Default" by HEP under paragraph (15) of Section 7.1A of the PPA; and

(e) any failure of the issuer of a Letter of Credit to pay HELCO any amount as to which HELCO has a proper claim, as and when due under such Letter of Credit, and the further failure of such issuer, or Black River Energy (as guarantor under the BRE Guarantee) to remedy such non-payment within forty-five (45) days after written demand therefore by HELCO served upon such issuer (with a copy to Black River Energy), shall be deemed a failure to pay HELCO and, accordingly, shall constitute an "Event of Default" by HEP under paragraph (16) of Section 7.1A of the PPA.

(f) Black River Energy shall notify HELCO of any change in the issuer's bank credit rating under Standard & Poor's (S&P) and Moody's within 30 days of such change. In the event the issuer has not maintained a rating of at least S&P Short-Term Issue Credit Rating of A-1, S&P Long-Term Issue Credit Rating of A, Moody's Short-Term Bank Deposit Rating of P-1 and Moody's Long-Term Bank Deposit Rating of A1, HELCO will have the right, but not the obligation, to require Black River Energy to secure an equivalent letter of credit with another financial institution, satisfactory to HELCO.

3. For so long as the obligation to maintain a Letter of Credit is being satisfied, HEP shall be excused from providing the letter of credit or bond required under

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paragraph (17) of Section 7.1A insofar as one of the Events of Default referenced therein has occurred with respect to Black River Energy.

4. In consideration of the covenants and agreements of Black River Energy and HEP set forth in paragraphs 1 and 2 above, HELCO hereby (a) consents to the transfer of the Interests to Black River Energy, which consent is given without regard to the consummation or non-consummation of the sale of the Black River Interests to Buyer; (b) consents to the sale of the Black River Interests to Buyer, (c) waives its HELCO Rights, if any, that may be triggered or otherwise activated as a result of said transfer and said sale, (d) consents to the replacement of the Jones Guarantee by the BRE Guarantee and the Letter of Credit, (e) consents to the termination of the Jones Guarantee upon such replacement and the release of Jones thereunder, (f) agrees that none of the aforesaid transfer of Interests to Black River Energy, the aforesaid sale of the Black River Interests to Buyer, or the replacement of the Jones Guarantee with the BRE Guarantee and the Letter of Credit shall constitute an Event of Default under Section 7.1A of the PPA, (g) waives any rights it may have to declare on Event of Default under Section 7.1A of the PPA as a result of *In re: J.A. Jones, Inc., et al., Debtor*, Case No. 03-33532 Chapter 11 Jointly Administer, United States Bankruptcy Court for the Western District of North Carolina and (h) affirms that no facts currently exist which, with the passage of time or the giving of notice or both, would give rise to an Event of Default under the PPA.

5. The consents to the transfer of the Interests and the sale of the Black River Interests set forth in clauses (a) and (b) of paragraph 4, and the waiver of HELCO's Rights set forth in clause (c) of paragraph 4, shall not authorize, nor be deemed to authorize, any other or further transfer, sale or assignment of direct or indirect interests in the Facility, HEP or in any members of HEP, to the extent any such other or further transfer, sale or assignment would otherwise trigger HELCO's Rights or any other HELCO consent rights under the PPA. The consents to the replacement of the Jones Guarantee by the BRE Guarantee and the Letter of Credit and the termination of the Jones Guarantee and the release of Jones set forth in clauses (d) and (e) of paragraph 4 shall not be understood or construed as an agreement to or the basis or justification for the termination of any other Guarantee under the PPA or the release of any other entity (including but not limited to any of the TECO Entities), nor as a waiver of any term, covenant, condition or provision of the PPA, any other Guarantee under the PPA, or any other instrument in favor of HELCO or with respect to the Facility, and all rights of HELCO under the PPA, any other Guarantee under the PPA, or any other instrument in favor of HELCO or with respect to the Facility are expressly reserved. The agreements, waivers and representations with respect to defaults and Events of Default set forth in clauses (f) and (g) of paragraph 4 shall not be understood or construed as a waiver of HELCO's right to require full and complete performance, from and after the date hereof, of all obligations imposed on "SELLER" under the PPA.

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6. HELCO acknowledges that Jones, Jones Capital, Jones Hamakua, HEP, the TECO Entities and Buyer will rely upon the undertakings of HELCO set forth in paragraph 4 above, subject to the reservations set forth in paragraph 5 above, in the future in connection with any rights, obligations and liabilities with respect to the Interests, the Black River Interests, the BRE Guarantee, the Letter of Credit and the PPA.

7. Miscellaneous.

(a) Definitions. All capitalized terms used herein and not defined herein, and which are defined in, or by reference in, the PPA, as the PPA may be amended from time to time in accordance with its terms, shall have the meanings specified in the PPA.

(b) Entire Agreement. This Consent and Agreement, including the Exhibits attached hereto, constitutes the entire agreement among the parties with respect to the subject matter hereof.

(c) Modification. No modification or waiver of all or any part of this Consent and Agreement shall be valid unless it is reduced to writing and signed by the parties.

(d) Governing Law and Interpretation. Interpretation and performance of this Consent and Agreement shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

(e) Counterparts. This Consent and Agreement may be executed in several counterparts and all such executed counterparts shall constitute one agreement, binding on the parties thereto, notwithstanding that all parties may not be signatories to the original or the same counterpart.

IN WITNESS WHEREOF, the parties hereto have caused this Consent and Agreement to be executed by their respective duly authorized officers as of the date first written above.

PHY. 26. 2004
May-26-04 6:10:00

5:24PM
FIDELITY LIMITED LIT GROUP (781) 292-7099
FIDELITY LIMITED LIT GROUP

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Page 6 of 13 P. 4114

BLACK RIVER ENERGY, LLC,
a Delaware limited liability company

By William H. Garrett
Name: William H. Garrett
Its: President

HAWAII ELECTRIC LIGHT COMPANY,
INC., a Hawaii corporation

By Richard W. Garrett
Name: RICHARD W. GARRETT
Its: FINANCIAL VICE PRESIDENT

HAMAKUA ENERGY PARTNERS, LP,
a Hawaii limited liability partnership

By William H. Garrett
Name: William H. Garrett
Its: President of Hamakua LLC
Managing General Partner

By Loric Ann Nagata
Name: Loric Ann Nagata
Its: Treasurer

Buyer acknowledges the agreements made by HEP in the foregoing
Consent and Agreement.

EIF HAMAKUA, LLC
a Delaware limited liability company

By Terence L. Darby
Name: Terence L. Darby
Its: Managing Partner

May-25-04 20:47

From-CARLSMITH EALL HONOLULU 02

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EXHIBIT A

GUARANTEE AGREEMENT

between

BLACK RIVER ENERGY, LLC

and

HAWAII ELECTRIC LIGHT COMPANY, INC.

THIS GUARANTEE AGREEMENT ("Guarantee") is made this ___ day of _____ 2004 by and between HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO"), with principal offices in Hilo, Hawaii, and BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Guarantor"), with principal offices in Charlotte, North Carolina.

WITNESSETH:

WHEREAS, HELCO is a regulated public utility engaged in the business of generation, transmission and distribution of electric power to customers on the island of Hawaii, Hawaii; and

WHEREAS, Jones Capital, LLC, a Delaware limited liability company ("Jones Capital"), owns (i) 50% of the outstanding interests of Hamakua A, LLC, a Delaware limited liability company ("Hamakua A"), which owns a 98% limited partner interest in Hamakua Energy Partners LP, a Hawaii limited liability partnership ("HEP"), and (ii) 100% of the outstanding capital stock of Jones Hamakua, Inc, a Hawaii corporation ("Jones Hamakua"), which owns a 1% general partner interest in HEP; and

WHEREAS, HEP is party to that certain Power Purchase Agreement, dated as of October 22, 1997, by and between HEP and HELCO, as amended (the "PPA"); and

WHEREAS, Jones Capital and Guarantor, which is a wholly-owned subsidiary of Jones Capital, have entered into a purchase agreement pursuant to which Jones Capital and Jones Hamakua have agreed, through a series of transactions, to transfer all of their outstanding equity interests in each of HEP and Hamakua A (the "Interests") to Guarantor, and Jones Capital will thereafter sell all of its membership interest in Guarantor (the "Black River Interests") to ELF Hamakua, LLC, a Delaware limited liability company ("ELF Hamakua"); and

WHEREAS, J.A. Jones, Inc., a Delaware corporation ("Jones"), the parent company of Jones Capital, has guaranteed HEP's performance under the PPA pursuant to a Guarantee Agreement, dated October 22, 1997, by and between Jones and HELCO (the "Jones Guarantee"); and

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From-CARLSMITH BALL HONOLULU 22

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WHEREAS, under the PPA, HELCO has certain rights of first refusal, or similar preference rights of purchase, that may be triggered or otherwise activated in the event that HEP should sell or transfer its interests in the Facility (the "HELCO Rights"). Although they do not believe that the transfer of the Interests to Guarantor and the subsequent sale of the Black River Interests to EIF Hamakua will trigger the HELCO Rights or any requirement to obtain HELCO's consent, Jones, Jones Capital, Jones Hamakua, HEP and EIF Hamakua would like to obtain HELCO's acknowledgement and consent to the transactions described herein; and

WHEREAS, as part of the consideration to them for the sale of the Black River Interests to EIF Hamakua, Jones and Jones Capital would like to obtain from HELCO the termination of the Jones Guarantee and the release of Jones thereunder; and

WHEREAS, although HELCO does not necessarily concur with the conclusion that the HELCO Rights will not be triggered by the transfer of the Interests to Guarantor and the subsequent sale of the Black River Interests to EIF Hamakua, HELCO is willing to waive the HELCO Rights with respect to such transfer and such sale, to acknowledge and consent to such transfer and such sale, and to terminate the Jones Guarantee and release Jones thereunder, all on the terms and conditions set forth in that certain Consent and Agreement dated on or about the date hereof (the "Consent and Agreement"); and

WHEREAS, among the terms and conditions set forth in the Consent and Agreement is the requirement that Guarantor enter into this Guarantee with HELCO; and

WHEREAS, to induce HELCO to enter into the Consent and Agreement, Guarantor is willing to enter in this Guarantee with HELCO.

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor hereby represents, warrants, covenants and agrees with HELCO as follows:

1. Definitions. All capitalized terms used herein and not defined herein, and which are defined in, or by reference in, the PPA, as the PPA may be amended from time to time in accordance with its terms, shall have the meanings specified in the PPA. The term "Letter of Credit" shall have the meaning specified in the Consent and Agreement.

2. Guarantee and Letter of Credit.

a. Subject to the limitations contained in Section 3, Guarantor hereby guarantees to HELCO the due and punctual payment, as and when due, of fifty percent (50%) (the "Proportionate Share") of all sums payable by HEP to HELCO as the result of the non-performance of obligations under the PPA or other events or circumstances during the term of the PPA. This Guarantee is one of two Guarantees provided by Guarantor and TECO Energy, Inc. in accordance with

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From-CARL SMITH EALL HONOLULU 02

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Section 21.1 of the PPA each of which constitutes a several, not joint, obligation of Guarantor and TECO Energy, Inc., respectively, with respect to any sums payable by HEP to HELCO under the PPA. In no event shall HELCO have recourse against Guarantor in excess of the lesser of its Proportionate Share of HEP's payment obligations or the limits set forth in Section 3 below.

b. This Guarantee is a primary and original obligation of Guarantor and is an absolute, unconditional, continuing and irrevocable guarantee and is in no way conditioned or contingent upon any attempt to collect payment from or proceed against HEP except as stated otherwise herein. This Guarantee shall remain in full force and effect until the earlier to occur of the following events: (i) all of HEP's obligations under the PPA including, without limitation, any obligations for breach thereof, have been fulfilled, (ii) this Guarantee has been substituted for in accordance with Section 21.1 of the PPA or (iii) the termination of the PPA; provided that obligations arising prior to such termination date shall survive such termination. Any notice required to be given by HELCO to HEP under the PPA shall also be given by HELCO to Guarantor at:

Black River Energy, LLC
6000 Fairview
Charlotte, N.C. 28287
Attention: Mr. William Garnett
Telephone: (704) 553-3243
Facsimile: (704) 553-3037

(or such other address as Guarantor may designate in writing to HELCO). Guarantor shall have the same opportunity to cure defaults by HEP under the PPA as HEP shall have; provided, however, that no time period provided in the PPA for cure shall be extended or start anew by virtue of this sentence.

c. In the event that the PPA shall be terminated as a result of the rejection or disaffirmance thereof by any trustee, receiver or liquidating agency of HEP or any of its properties, in any assignment for the benefit of creditors or any bankruptcy, insolvency, reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar proceeding, Guarantor's obligations hereunder shall continue to the same extent as if such PPA had not been so rejected or disaffirmed. Guarantor shall, and does hereby waive all rights and benefits which might relieve, in whole or in part, Guarantor from the performance of its duties and obligations hereunder by reason of any such proceeding, and Guarantor agrees that it shall be liable for all sums and obligations guaranteed by this Guarantee without regard to any modification, limitation or discharge of the liability of HEP that may result from any such proceeding.

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d. As a material obligation of Guarantor under this Guarantee, Guarantor shall, from the date first written above through the thirtieth (30th) day following the period this Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) hereof, maintain or cause to be maintained in full force and effect a Letter of Credit as required by the Consent and Agreement, and shall, no later than thirty (30) days prior to the expiration of the term of any Letter of Credit then in effect, replace or cause to be replaced such Letter of Credit by delivery to HELCO of a newly issued Letter of Credit, and any failure to maintain such Letter of Credit in full force and effect as aforesaid, including but not limited to any failure to replace a Letter of Credit no later than thirty (30) days prior to the expiration of the term thereof, shall constitute grounds for HELCO to draw the full amount of the Letter of Credit regardless of whether or not HELCO would then be permitted to demand payment from Guarantor under this Guarantee. Any such amounts drawn on the Letter of Credit pursuant to the preceding sentence shall be (i) held by HELCO, as security for Guarantor's performance of its obligation to maintain the Letter of Credit as aforesaid, until such time as a new Letter of Credit is issued and delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid to Guarantor or its designee without interest.

3. Guarantee Limits. Guarantor's obligations under Section 2(a) hereof in the aggregate shall be limited to the amounts shown below with respect to sums as payable by HEP to HELCO pursuant to the PPA as the result of events or circumstances during the period shown opposite such amounts:

<u>Period</u>	<u>Amount</u>
From Phase 2 In-Service Date to End of Term	\$1,500,000

4. Generally. Guarantor shall not be liable under Section 2 of this Guarantee to any extent greater than 50% of the liability it would have incurred if it had been the contracting party (in place of HEP) under the PPA, and all the representations and warranties made by Guarantor in Section 5 hereof in respect of this Guarantee were true in respect of the PPA as well as the Guarantee and notwithstanding any bankruptcy or insolvency of the HEP. In addition, Guarantor shall have no obligation under Section 2(a) of this Guarantee for any claim for payment, performance or otherwise attributable to events or circumstances during the period prior to the Phase 2 In-Service Date, not asserted by HELCO in writing within one hundred eighty (180) days after the Phase 2 In-Service Date.

5. Representations and Warranties. Guarantor represents and warrants as follows:

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From-CARLSMITH BALL HONOLULU 02

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- a. Guarantor has full power, authority and legal right to execute and deliver and perform its obligations under this Guarantee. This Guarantee has been duly executed and delivered by Guarantor and constitutes a legal, valid and binding obligation of Guarantor, enforceable in accordance with its terms, except to the extent that such enforcement may be limited by any bankruptcy, reorganization, insolvency, moratorium or similar laws affecting generally the enforcement of creditors' rights from time to time in effect and general principles of equity.
- b. No consent, authorization or approval of, or filing with, any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, is or has been required in respect of Guarantor in connection with the execution, delivery or performance by Guarantor of this Guarantee, or the compliance by Guarantor with any of the remedies and provisions hereof.
- c. The execution and delivery of, and performance by Guarantor of its obligations under this Guarantee will not result in a violation of, or be in conflict with, any provision of the articles of organization or the operating agreement of Guarantor, or result in a violation of, or be in conflict with, or constitute a default or any event which would, with notice or lapse of time, or both, become a default under, any mortgage, indenture, contract, agreement or other instrument to which Guarantor is a party or by which it or its property is bound, or result in a violation of, or be in conflict with, or result in a breach of, any term or provision of any judgment, order, decree or award of any court, arbitrator or governmental or public instrumentality binding upon Guarantor or its property, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.
- d. Guarantor is not in default, and no conditions exists which, with notice or lapse of time, or both, would constitute a default by Guarantor under any mortgage, loan agreement, deed or trust, indenture or other agreement with respect thereto, evidence of indebtedness or other instrument of a material nature, to which it is party or by which it is bound, or in violation of, or in default under, any rule, regulation, order writ, judgment, injunction or decree of any court, arbitrator or federal, state, municipal or other governmental authority, commission, board, bureau, agency, or instrumentality, domestic or foreign, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.
- e. There is no action, suit, proceeding, inquiry or investigation, at law or in equity, or before or by any court, public board or body, pending against Guarantor, or of which Guarantor has otherwise received official notice, or which to the knowledge of Guarantor is threatened against Guarantor, wherein an adverse

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From-CARLSMITH BALL HONOLULU 02

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decision, ruling or finding would have a material adverse effect on the Guarantor's financial position or its ability to perform its obligations under this Guarantee.

f. All agreements, representations and warranties contained herein or made in writing by or on behalf of Guarantor in connection with the transaction contemplated hereby shall survive the execution and delivery of this Guarantee.

6. Notice. Guarantor shall give written notice to HELCO and HEP within ten (10) days after (i) the occurrence of any event or circumstance that results in any of the representations and warranties made by Guarantor in Section 5 ceasing to be accurate, or (ii) the occurrence, with respect to Guarantor, of any of the events specified in paragraphs (10) or (11) of Section 7.1A of the PPA as constituting an Event of Default upon the occurrence thereof with respect to HEP. Such notice shall describe, with reasonable particularity, the event or circumstances that has caused such result and shall specify the effect thereof on all representations and warranties of Guarantor that are affected thereby.

7. Miscellaneous.

a. Severability. If any term or provision of this Guarantee or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Guarantee, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Guarantee shall be valid and enforceable to the fullest extent permitted by law.

b. No Waiver. Except as specifically provided otherwise herein, the failure of either party to enforce at any time any of the provisions of this Guarantee, or to require at anytime performance by the other party of any of the provisions thereof, shall in no way be construed to be a waiver of such provision, nor in any way to affect the validity of this Guarantee or any part hereof, or the right of such party thereafter to enforce every such provision.

c. Modification. No modification or waiver of all or any part of this Guarantee shall be valid unless it is reduced to writing and signed by both parties.

d. Governing Law and Interpretation. Interpretation and performance of this Guarantee shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

e. Counterparts. This Guarantee may be executed in several counterparts and all such executed counterparts shall constitute one agreement,

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EIR GROUP (781) 292-7099

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binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

f. Successors and Assigns. This Guarantee shall be binding upon Guarantor and its successors and assigns and all persons claiming under or through Guarantor or any such successor or assigns, and shall inure to the benefit of, and be enforceable by, HELCO.

g. Consolidation. In the event that HELCO brings an action to enforce this Guarantee during the pendency of any proceeding (arbitration or otherwise) between HELCO and HEP, Guarantor shall have the option to join such enforcement action with any such pending proceeding. Moreover, Guarantor shall have the option to join any such proceeding first brought against Guarantor with any subsequent proceeding brought against HEP. In each of the cases described above, such joinder option shall extend until such time as a final judgment is rendered in the relevant proceeding.

IN WITNESS WHEREOF, HELCO and Guarantor have caused this Guarantee to be executed by their respective duly authorized officers as of the date first above written.


HELCO:

GUARANTOR:


HAWAII ELECTRIC COMPANY, INC.

BLACK RIVER ENERGY, LLC


By


Name: RICHARD A. von GRUNTEN
Its: FINANCIAL VICE PRESIDENT

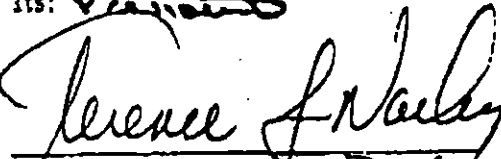
By


Name: William A. Grunett
Its: President

By


Name: Lori Ann Nugata
Its: Treasurer

By


Name: Terence L. Darity
Its: Chairman

CONSENT AND AGREEMENT
CONCERNING CERTAIN ASSETS OF
TPS HAMAKUA, INC. AND TPS HAWAII, INC.

THIS CONSENT AND AGREEMENT (the "Consent and Agreement") dated as of _____, 2004 is entered into by and among BR LANDING, LLC, a Delaware limited liability company ("Buyer"), BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Black River Energy"), HAMAKUA ENERGY PARTNERS, L.P., a Hawaii limited partnership ("HEP"), and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO").

B A C K G R O U N D

A. TPS Hawaii, Inc., a Florida corporation ("TPS Hawaii"), owns 50% of the outstanding interests of Hamakua A, LLC, a Delaware limited liability company ("Hamakua A"), which owns a 98% limited partner interest in HEP. TPS Hamakua, Inc., a Florida corporation ("TPS Hamakua") owns a 1% general partner interest in HEP.

B. HEP is party to that certain Power Purchase Agreement, dated as of October 22, 1997, by and between HEP and HELCO, as amended (the "PPA").

C. Black River Energy is a wholly owned subsidiary of EIF Hamakua, LLC, a Delaware limited liability company. Black River Energy owns the remaining 50% of the outstanding membership interest in Hamakua A. Black River Energy's wholly-owned subsidiary, BR Hamakua, LLC, a Hawaii limited liability company ("BR Hamakua") owns the other 1% general partner interest in HEP.

D. TPS Hawaii and TPS Hamakua have entered into an acquisition agreement pursuant to which TPS Hawaii and TPS Hamakua have agreed to sell all of their outstanding equity interests in each of HEP and Hamakua A (the "TPS Interests") to Buyer, a wholly-owned subsidiary of Black River Energy. EIF Hamakua, LLC, Black River Energy, BR Hamakua and Buyer are collectively referred to as the "Black River Entities."

E. TECO Energy, Inc. a Florida corporation, ("TECO"), the ultimate parent company of TPS Hawaii and TPS Hamakua, has guaranteed HEP's performance under the PPA pursuant to a Guarantee Agreement, dated November 8, 1999, by and between TECO and HELCO (the "TECO Guarantee"). Upon closing of the sale of the TPS Interests to Buyer, Black River Energy will provide a guarantee to HELCO substantially in the form attached hereto as Exhibit A (the "Buyer Guarantee") to replace the TECO Guarantee and shall also obtain, or cause Buyer to obtain, a letter of credit in favor of HELCO, issued by a bank located in the State of Hawaii (or otherwise doing business in the United States) and acceptable to HELCO, for a term of not less than one year from the date of issuance and substantially in the form attached hereto as Exhibit B. (A letter

of credit which satisfies the requirements of the preceding sentence is referred to herein as a "Letter of Credit.")

F. Under Section 19.1 of the PPA, HELCO has certain rights of first refusal, or similar preference rights of purchase, that may be triggered or otherwise activated in the event that HEP should sell or transfer its interests in the Facility (the "HELCO Rights"). Although they do not believe that the sale of the TPS Interests to Buyer will trigger the HELCO Rights or any requirement to obtain HELCO's consent, TECO, TPS Hawaii, TPS Hamakua, HEP and the Black River Entities would like to obtain HELCO's acknowledgement and consent to the transactions described herein.

G. As part of the consideration to them for the sale of the TPS Interests to Buyer, TECO would like to obtain from HELCO a termination of the TECO Guarantee and a release of TECO thereunder.

H. Although HELCO does not necessarily concur with the conclusion that the HELCO Rights will not be triggered by the sale of the TPS Interests to Buyer, HELCO is willing to waive the HELCO Rights with respect to said sale, to acknowledge and consent to said sale, and to terminate the TECO Guarantee and release TECO thereunder, all on the terms and conditions set forth herein.

A G R E E M E N T

In light of the foregoing, the parties set forth their agreement as follows:

1. Concurrent with the sale of the TPS Interests, Black River Energy shall (a) issue and deliver to HELCO the Buyer Guarantee, and (b) cause the issuance of a Letter of Credit and deliver same to HELCO.
2. Effective concurrently with the sale of the TPS Interests to Buyer:
 - (a) the Buyer Guarantee shall, insofar as the Guarantee issued by Black River Energy to replace the TECO Guarantee is concerned, be deemed to replace the Form of Guaranty attached to the PPA as Attachment T;
 - (b) all references to Guarantee and Guarantee(s) in the PPA shall, insofar as they refer to the Guarantee issued by Black River Energy in replacement of the TECO Guarantee, be deemed to refer to the Buyer Guarantee;
 - (c) from the date the Buyer Guarantee is to be issued and delivered to HELCO pursuant to paragraph 1 above through the thirtieth (30th) day following the period the Buyer Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) of the Buyer Guarantee, Black River Energy shall maintain or cause Buyer to maintain in full force and effect a Letter of Credit, and shall, no later than thirty (30) days prior to the expiration of the term of any Letter

of Credit then in effect, replace or cause to be replaced such Letter of Credit by delivery to HELCO of a newly issued Letter of Credit, and any failure to maintain a Letter of Credit in full force and effect as aforesaid, including but not limited to any failure to replace a Letter of Credit no later than thirty (30) days prior to the expiration of the term thereof, shall constitute grounds for HELCO to draw down the full amount of the Letter of Credit regardless of whether or not HELCO would otherwise then be entitled to demand payment from HEP under the PPA or from Black River Energy under the Buyer Guarantee, and any such amounts drawn on the Letter of Credit pursuant to this subparagraph (c) shall be (i) held by HELCO, as security for Black River Energy's performance of its obligation to maintain the Letter of Credit as aforesaid, until such time a new Letter of Credit is issued and delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid over to Black River Energy or its designee without interest;

(d) except in the circumstance where HELCO has drawn down the full amount of the Letter of Credit, as contemplated under the preceding subparagraph (c), any failure to maintain the Letter of Credit in full force and effect as and to the extent required under the preceding subparagraph (c) shall be deemed to be a failure by HEP to maintain the Buyer Guarantee in full force and effect and, accordingly, shall constitute an "Event of Default" by HEP under paragraph (15) of Section 7.1A of the PPA; and

(e) any failure of the issuer of a Letter of Credit to pay HELCO any amount as to which HELCO has a proper claim, as and when due under such Letter of Credit, and the further failure of such issuer, or Black River Energy (as guarantor under the Buyer Guarantee) to remedy such non-payment within forty-five (45) days after written demand therefore by HELCO served upon such issuer (with a copy to Black River Energy and Buyer), shall be deemed a failure to pay HELCO and, accordingly, shall constitute an "Event of Default" by HEP under paragraph (16) of Section 7.1A of the PPA.

(f) Black River Energy shall notify or cause Buyer to notify HELCO of any change in the issuer's bank credit rating under Standard & Poor's (S&P) and Moody's within 30 days of such change. In the event the issuer has not maintained a rating of at least S&P Short-Term Issue Credit Rating of A-1, S&P Long-Term Issue credit Rating of A, Moody's Short-Term Bank Deposit Rating of P-1 and Moody's Long-Term Bank Deposit Rating of A1, HELCO will have the right, but not the obligation, to require Black River Energy to secure an equivalent letter of credit with another financial institution satisfactory to HELCO.

3. For so long as the obligation to maintain a Letter of Credit is being satisfied, HEP shall be excused from providing the letter of credit or bond required under

paragraph (17) of Section 7.1A insofar as one of the Events of Default referenced therein has occurred with respect to Black River Energy or Buyer.

4. In consideration of the covenants and agreements of Black River Energy and HEP set forth in paragraphs 1 and 2 above, HELCO hereby (a) consents to the sale of the TPS Interests to Buyer, (b) waives its HELCO Rights, if any, that may be triggered or otherwise activated as a result of said sale, (c) consents to the replacement of the TECO Guarantee by the Buyer Guarantee and the Letter of Credit, (d) consents to the termination of the TECO Guarantee upon such replacement and the release of TECO thereunder, (e) agrees that none of the aforesaid sale of the TPS Interests to Buyer, or the replacement of the TECO Guarantee with the Buyer Guarantee and the Letter of Credit shall constitute an Event of Default under Section 7.1A of the PPA, and (f) affirms that no facts currently exist which, with the passage of time or the giving of notice or both, would give rise to an Event of Default under the PPA.

5. The consents to the sale of the TPS Interests set forth in clause (a) of paragraph 4, and the waiver of HELCO's Rights set forth in clause (b) of paragraph 4, shall not authorize, nor be deemed to authorize, any other or further transfer, sale or assignment of direct or indirect interests in the Facility, HEP or in any members of HEP, to the extent any such other or further transfer, sale or assignment would otherwise trigger HELCO's Rights or any other HELCO consent rights under the PPA. The consents to the replacement of the TECO Guarantee by the Buyer Guarantee and the Letter of Credit and the termination of the TECO Guarantee and the release of TECO set forth in clauses (c) and (d) of paragraph 4 shall not be understood or construed as an agreement to or the basis or justification for the termination of any other Guarantee under the PPA or the release of any other entity, nor as a waiver of any term, covenant, condition or provision of the PPA, any other Guarantee under the PPA, or any other instrument in favor of HELCO or with respect to the Facility, and all rights of HELCO under the PPA, any other Guarantee under the PPA, or any other instrument in favor of HELCO or with respect to the Facility are expressly reserved. The agreements, waivers and representations with respect to defaults and Events of Default set forth in clauses (e) and (f) of paragraph 4 shall not be understood or construed as a waiver of HELCO's right to require full and complete performance, from and after the date hereof, of all obligations imposed on "SELLER" under the PPA.

6. HELCO acknowledges that TECO, TPS Hawaii, TPS Hamakua, HEP and the Black River Entities will rely upon the undertakings of HELCO set forth in paragraph 4 above, subject to the reservations set forth in paragraph 5 above, in the future in connection with any rights, obligations and liabilities with respect to the TPS Interests, the Buyer Guarantee, the Letter of Credit and the PPA.

7. Miscellaneous.

(a) Definitions. All capitalized terms used herein and not defined herein, and which are defined in, or by reference in, the PPA, as the PPA may be amended from time to time in accordance with its terms, shall have the meanings specified in the PPA.

(b) Entire Agreement. This Consent and Agreement, including the Exhibits attached hereto, constitutes the entire agreement among the parties with respect to the subject matter hereof.

(c) Modification. No modification or waiver of all or any part of this Consent and Agreement shall be valid unless it is reduced to writing and signed by the parties.

(d) Governing Law and Interpretation. Interpretation and performance of this Consent and Agreement shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

(e) Counterparts. This Consent and Agreement may be executed in several counterparts and all such executed counterparts shall constitute one agreement, binding on the parties thereto, notwithstanding that all parties may not be signatories to the original or the same counterpart.

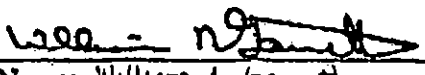
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IN WITNESS WHEREOF, the parties hereto have caused this Consent and Agreement to be executed by their respective duly authorized officers as of the date first written above.

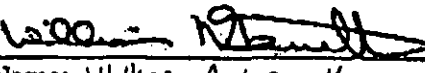
BLACK RIVER ENERGY, LLC,
a Delaware limited liability company

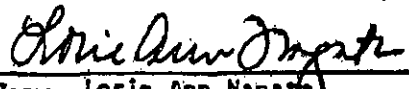
By 
Name: William A. Garnett
Its: President

HAWAII ELECTRIC LIGHT COMPANY,
INC., a Hawaii corporation

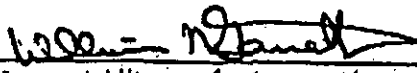
By 
Name: Richard A. von Gnechten
Its: Financial Vice President

BR LANDING, LLC,
a Delaware limited liability company

By 
Name: William A. Garnett
Its: President

By 
Name: Lorie Ann Nagata
Its: Treasurer

HAMAKUA ENERGY PARTNERS, L.P.,
a Hawaii limited liability partnership

By 
Name: William A. Garnett
Its: President

EIF Hamakua LLC acknowledges the agreements made by HEP in the foregoing Consent and Agreement.

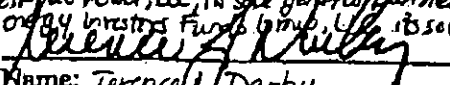
EIF HAMAKUA, LLC,
a Delaware limited liability company
By: United States Power Fund, L.P., its sole member
By: EIF US Power, LLC, its sole general partner
By: Energy Investing Fund Group, LLC, its sole member
By 
Name: Terence L. Darby
Its: Managing Partner

EXHIBIT A

GUARANTEE AGREEMENT

between

BLACK RIVER ENERGY, LLC

and

HAWAII ELECTRIC LIGHT COMPANY, INC.

THIS GUARANTEE AGREEMENT ("Guarantee") is made this ___ day of _____ 2004 by and between HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO"), with principal offices in Hilo, Hawaii, and BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Guarantor"), with principal offices in Charlotte, North Carolina.

WITNESSETH:

WHEREAS, HELCO is a regulated public utility engaged in the business of generation, transmission and distribution of electric power to customers on the island of Hawaii, Hawaii; and

WHEREAS, TPS Hawaii, Inc., a Florida corporation ("TPS Hawaii"), owns 50% of the outstanding interests of Hamakua A, LLC, a Delaware limited liability company ("Hamakua A"), which owns a 98% limited partner interest in Hamakua Energy Partners L.P., a Hawaii limited liability partnership ("HEP"), and TPS Hamakua, Inc., a Florida corporation ("TPS Hamakua") owns a 1% general partner interest in HEP; and

WHEREAS, HEP is party to that certain Power Purchase Agreement, dated as of October 22, 1997, by and between HEP and HELCO, as amended (the "PPA"); and

WHEREAS, TPS Hawaii and TPS Hamakua have entered into an acquisition agreement pursuant to which TPS Hawaii and TPS Hamakua have agreed to sell all of their outstanding equity interests in each of HEP and Hamakua A (the "TPS Interests") to BR LANDING, LLC, a Delaware limited liability company ("Buyer") and a wholly-owned subsidiary of Guarantor, which in turn is a wholly-owned subsidiary of EIF Hamakua, LLC, a Delaware limited liability company; and

WHEREAS, TECO Energy, Inc. a Florida corporation, ("TECO"), the ultimate parent company of TPS Hawaii and TPS Hamakua, has guaranteed HEP's performance under the PPA pursuant to a Guarantee Agreement, dated November 8, 1999, by and between TECO and HELCO (the "TECO Guarantee"); and

WHEREAS, under the PPA, HELCO has certain rights of first refusal, or similar preference rights of purchase, that may be triggered or otherwise activated in the event that HEP should sell or transfer its interests in the Facility (the "HELCO Rights").

Although they do not believe that the transfer of the TPS Interests to Buyer will trigger the HELCO Rights or any requirement to obtain HELCO's consent, TECO, TPS Hawaii, TPS Hamakua, HEP, Black River Energy and EIF Hamakua, LLC would like to obtain HELCO's acknowledgement and consent to the transactions described herein; and

WHEREAS, as part of the consideration to them for the sale of the TPS Interests to Buyer, TECO, TPS Hawaii and TPS Hamakua would like to obtain from HELCO the termination of the TECO Guarantee and the release of TECO thereunder; and

WHEREAS, although HELCO does not necessarily concur with the conclusion that the HELCO Rights will not be triggered by the transfer of the TPS Interests to Buyer, HELCO is willing to waive the HELCO Rights with respect to such sale, to acknowledge and consent to such sale, and to terminate the TECO Guarantee and release TECO thereunder, all on the terms and conditions set forth in that certain Consent and Agreement dated on or about the date hereof (the "Consent and Agreement"); and

WHEREAS, among the terms and conditions set forth in the Consent and Agreement is the requirement that Guarantor enter into this Guarantee with HELCO;

WHEREAS, to induce HELCO to enter into the Consent and Agreement, Guarantor is willing to enter into this Guarantee with HELCO; and

WHEREAS, in connection with Guarantor's purchase in May 2004 of the interests in HEP and Hamakua A theretofore owned by one or more entities affiliated with J.A. Jones, Inc., a Delaware corporation, Guarantor entered into a guarantee on similar terms dated May 26, 2004 (the "Jones Replacement Guarantee").

NOW, THEREFORE, in consideration of these premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor hereby represents, warrants, covenants and agrees with HELCO as follows:

1. Definitions. All capitalized terms used herein and not defined herein, and which are defined in, or by reference in, the PPA, as the PPA may be amended from time to time in accordance with its terms, shall have the meanings specified in the PPA. The term "Letter of Credit" shall have the meaning specified in the Consent and Agreement.

2. Guarantee and Letter of Credit.

a. Subject to the limitations contained in Section 3, and without amending or modifying the Jones Replacement Guarantee in any way, Guarantor hereby guarantees to HELCO the due and punctual payment, as and when due, of fifty percent (50%) (the "Proportionate Share") of all sums payable by HEP to HELCO as the result of the non-performance of obligations under the PPA or other events or circumstances during the term of the PPA. This Guarantee is in addition to the Jones Replacement Guarantee and constitutes a separate and

additional obligation of Guarantor, with respect to any sums payable by HEP to HELCO under the PPA. In no event shall HELCO have recourse against Guarantor, pursuant to this Guarantee, in excess of the lesser of its Proportionate Share of HEP's payment obligations or the limits set forth in Section 3 below.

b. This Guarantee is a primary and original obligation of Guarantor and is an absolute, unconditional, continuing and irrevocable guarantee and is in no way conditioned or contingent upon any attempt to collect payment from or proceed against HEP except as stated otherwise herein. This Guarantee shall remain in full force and effect until the earlier to occur of the following events: (i) all of HEP's obligations under the PPA including, without limitation, any obligations for breach thereof, have been fulfilled, (ii) this Guarantee has been substituted for in accordance with Section 21.1 of the PPA or (iii) the termination of the PPA; provided that obligations arising prior to such termination date shall survive such termination. Any notice required to be given by HELCO to HEP under the PPA shall also be given by HELCO to Guarantor at:

Black River Energy, LLC
6000 Fairview
Charlotte, N.C. 28287
Attention: Mr. William Garnett
Telephone: (704) 553-3243
Facsimile: (704) 553-3037

(or such other address as Guarantor may designate in writing to HELCO). Guarantor shall have the same opportunity to cure defaults by HEP under the PPA as HEP shall have; provided, however, that no time period provided in the PPA for cure shall be extended or start anew by virtue of this sentence.

c. In the event that the PPA shall be terminated as a result of the rejection or disaffirmance thereof by any trustee, receiver or liquidating agency of HEP or any of its properties, in any assignment for the benefit of creditors or any bankruptcy, insolvency, reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar proceeding, Guarantor's obligations hereunder shall continue to the same extent as if such PPA had not been so rejected or disaffirmed. Guarantor shall, and does hereby waive all rights and benefits which might relieve, in whole or in part, Guarantor from the performance of its duties and obligations hereunder by reason of any such proceeding, and Guarantor agrees that it shall be liable for all sums and obligations guaranteed by this Guarantee without regard to any modification, limitation or discharge of the liability of HEP that may result from any such proceeding.

d. As a material obligation of Guarantor under this Guarantee, Guarantor shall, from the date first written above through the thirtieth (30th) day

following the period this Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) hereof, maintain or cause to be maintained in full force and effect a Letter of Credit as required by the Consent and Agreement, and shall, no later than thirty (30) days prior to the expiration of the term of any Letter of Credit then in effect, replace or cause to be replaced such Letter of Credit by delivery to HELCO of a newly issued Letter of Credit, and any failure to maintain such Letter of Credit in full force and effect as aforesaid, including but not limited to any failure to replace a Letter of Credit no later than thirty (30) days prior to the expiration of the term thereof, shall constitute grounds for HELCO to draw the full amount of the Letter of Credit regardless of whether or not HELCO would then be permitted to demand payment from Guarantor under this Guarantee. Any such amounts drawn on the Letter of Credit pursuant to the preceding sentence shall be (i) held by HELCO, as security for Guarantor's performance of its obligation to maintain the Letter of Credit as aforesaid, until such time as a new Letter of Credit is issued and delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid to Guarantor or its designee without interest.

3. Guarantee Limits. Guarantor's obligations under Section 2(a) of this Guarantee in the aggregate shall be limited to the amounts shown below with respect to sums as payable by HEP to HELCO pursuant to the PPA as the result of events or circumstances during the period shown opposite such amounts:

<u>Period</u>	<u>Amount</u>
From Phase 2 In-Service Date to End of Term	\$1,500,000

4. Generally. Guarantor shall not be liable under Section 2 of this Guarantee to any extent greater than 50% of the liability it would have incurred if it had been the contracting party (in place of HEP) under the PPA, and all the representations and warranties made by Guarantor in Section 5 hereof in respect of this Guarantee were true in respect of the PPA as well as the Guarantee and notwithstanding any bankruptcy or insolvency of the HEP. In addition, Guarantor shall have no obligation under Section 2(a) of this Guarantee for any claim for payment, performance or otherwise attributable to events or circumstances during the period prior to the Phase 2 In-Service Date, not asserted by HELCO in writing within one hundred eighty (180) days after the Phase 2 In-Service Date.

5. Representations and Warranties. Guarantor represents and warrants as follows:

a. Guarantor has full power, authority and legal right to execute and deliver and perform its obligations under this Guarantee. This Guarantee has been duly executed and delivered by Guarantor and constitutes a legal, valid and

binding obligation of Guarantor, enforceable in accordance with its terms, except to the extent that such enforcement may be limited by any bankruptcy, reorganization, insolvency, moratorium or similar laws affecting generally the enforcement of creditors' rights from time to time in effect and general principles of equity.

b. No consent, authorization or approval of, or filing with, any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, is or has been required in respect of Guarantor in connection with the execution, delivery or performance by Guarantor of this Guarantee, or the compliance by Guarantor with any of the remedies and provisions hereof.

c. The execution and delivery of, and performance by Guarantor of its obligations under this Guarantee will not result in a violation of, or be in conflict with, any provision of the articles of organization or the operating agreement of Guarantor, or result in a violation of, or be in conflict with, or constitute a default or any event which would, with notice or lapse of time, or both, become a default under, any mortgage, indenture, contract, agreement or other instrument to which Guarantor is a party or by which it or its property is bound, or result in a violation of, or be in conflict with, or result in a breach of any term or provision of any judgment, order, decree or award of any court, arbitrator or governmental or public instrumentality binding upon Guarantor or its property, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.

d. Guarantor is not in default, and no conditions exists which, with notice or lapse of time, or both, would constitute a default by Guarantor under any mortgage, loan agreement, deed or trust, indenture or other agreement with respect thereto, evidence of indebtedness or other instrument of a material nature, to which it is party or by which it is bound, or in violation of, or in default under, any rule, regulation, order, writ, judgment, injunction or decree of any court, arbitrator or federal, state, municipal or other governmental authority, commission, board, bureau, agency, or instrumentality, domestic or foreign, which individually or in the aggregate would materially adversely affect Guarantor's ability to perform its obligations under this Guarantee.

e. There is no action, suit, proceeding, inquiry or investigation, at law or in equity, or before or by any court, public board or body, pending against Guarantor, or of which Guarantor has otherwise received official notice, or which to the knowledge of Guarantor is threatened against Guarantor, wherein an adverse decision, ruling or finding would have a material adverse effect on the Guarantor's financial position or its ability to perform its obligations under this Guarantee.

f. All agreements, representations and warranties contained herein or made in writing by or on behalf of Guarantor in connection with the transaction contemplated hereby shall survive the execution and delivery of this Guarantee.

6. Notice. Guarantor shall give written notice to HELCO and HEP within ten (10) days after (i) the occurrence of any event or circumstance that results in any of the representations and warranties made by Guarantor in Section 5 ceasing to be accurate, or (ii) the occurrence, with respect to Guarantor, of any of the events specified in paragraphs (10) or (11) of Section 7.1A of the PPA as constituting an Event of Default upon the occurrence thereof with respect to HEP. Such notice shall describe, with reasonable particularity, the event or circumstances that has caused such result and shall specify the effect thereof on all representations and warranties of Guarantor that are affected thereby.

7. Miscellaneous.

a. Severability. If any term or provision of this Guarantee or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Guarantee, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Guarantee shall be valid and enforceable to the fullest extent permitted by law.

b. No Waiver. Except as specifically provided otherwise herein, the failure of either party to enforce at any time any of the provisions of this Guarantee, or to require at anytime performance by the other party of any of the provisions thereof, shall in no way be construed to be a waiver of such provision, nor in any way to affect the validity of this Guarantee or any part hereof, or the right of such party thereafter to enforce every such provision.

c. Modification. No modification or waiver of all or any part of this Guarantee shall be valid unless it is reduced to writing and signed by both parties.

d. Governing Law and Interpretation. Interpretation and performance of this Guarantee shall be in accordance with, and shall be controlled by, the laws of the State of Hawaii, other than the laws thereof that would require reference to the laws of any other jurisdiction.

e. Counterparts. This Guarantee may be executed in several counterparts and all such executed counterparts shall constitute one agreement, binding on both parties thereto, notwithstanding that both parties may not be signatories to the original or the same counterpart.

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J. A. JONES VENTURES

TEL: 704553037

P. 008

f. Successors and Assigns. This Guarantee shall be binding upon Guarantor and its successors and assigns and all persons claiming under or through Guarantor or any such successor or assigns, and shall inure to the benefit of, and be enforceable by, HELCO.

g. Consolidation. In the event that HELCO brings an action to enforce this Guarantee during the pendency of any proceeding (arbitration or otherwise) between HELCO and HEP, Guarantor shall have the option to join such enforcement action with any such pending proceeding. Moreover, Guarantor shall have the option to join any such proceeding first brought against Guarantor with any subsequent proceeding brought against HEP. In each of the cases described above, such joinder option shall extend until such time as a final judgment is rendered in the relevant proceeding.

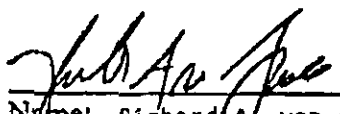
IN WITNESS WHEREOF, HELCO and Guarantor have caused this Guarantee to be executed by their respective duly authorized officers as of the date first above written.

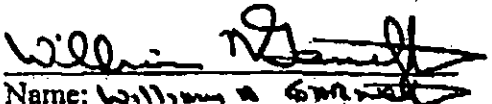
HELCO:

GUARANTOR:

HAWAII ELECTRIC LIGHT COMPANY,
INC.

BLACK RIVER ENERGY, LLC

By 
Name: Richard A. von Gnechten
Its: Financial Vice President

By 
Name: William A. Gorman
Its: President

By 
Name: Lorie Ann Nagata
Its: Treasurer

By _____
Name:
Its:

JUL-15-2004 THU 04:09 PM

FAX NO.

P. 02/05



International Services - Standby L/C Unit
2000 Randolph Road, 2nd Floor
Charlotte, NC 28207
SWIFT: CNTAUS33
Telex: 49606655 CENTURABKINTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 FAX
1-800-938-6299

Irrevocable Standby Letter of Credit Number SB002748

Issue Date: July 15, 2004

Expiry Date: July 30, 2005

Beneficiary:
Hawaii Electric Light Company, Inc. ("HELCO")
P.O. Box 1027
Hilo, Hawaii 96720-1027

Applicant:
Black River Energy, LLC
6000 Fairview Road, Suite 600
Charlotte, NC 28210

Attention: Financial Vice President (Richard A. von Gnechten)

We hereby establish our irrevocable Standby letter of credit in the amount of USD1,500,000.00 (One Million Five Hundred Thousand and 00/100 U.S. Dollars) in your favor at the request and for the account of Black River Energy, LLC (hereinafter referred to as "BLACK RIVER") as follows:

Funds under this irrevocable standby letter of credit are available to the beneficiary against presentation to us, at our office located at 2000 Randolph Road, 2nd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit, of the original version of this letter of credit along with such beneficiary's draft drawn at sight on us, marked thereon "Drawn under irrevocable standby letter of credit no. SB002748", and accompanied by the following documents:

1. Original dated statement on the letterhead of HELCO purportedly signed by the Financial Vice President (Richard A. von Gnechten) [or on the letterhead of the administrative agent purportedly signed by an authorized officer of the administrative agent] stating: "An event has occurred which entitles HELCO to draw on irrevocable standby letter of credit no. SB002748. This statement is a demand for payment under irrevocable standby letter of credit no. SB002748."

And

2. A copy of written notification from HELCO to BLACK RIVER that (A) an event has occurred which entitles HELCO to draw on irrevocable standby letter of credit and (B) such beneficiary intends to make demand for payment under irrevocable standby letter of credit no. SB002748 by presenting the required statement purportedly signed by the Financial Vice President (Richard A. von Gnechten).

SPECIAL CONDITIONS:

1. Payment under this irrevocable standby letter of credit will be made to an account at such bank as HELCO shall stipulate. The amount or amounts demanded shall not exceed, in the aggregate, the amount of this irrevocable standby letter of credit.
2. Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever and by whomever imposed.
3. Any reference to the Power Purchase Agreement (as amended, amended and restated or otherwise modified from time to time, the "Power Purchase Agreement"), dated as of October 22, 1997, is for information purposes only

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FAX NO.

P. 03/05



International Services - Standby L/C Unit
2000 Randolph Road, 2nd Floor
Charlotte, NC 28207
SWIFT: CNTAUS33
Telex: 49606655 CENTURABKINTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 FAX
1-800-938-6299

Irrevocable standby letter of credit no. SB002748
July 15, 2004
Page number 2

and is not incorporated in nor made a part of this irrevocable standby letter of credit. No alterations in the terms of the Power Purchase Agreement or in the extent or nature of the payments to be made under the Power Purchase Agreement, and no allowance of time by you or other forbearance or concession or any other act or omission by you which but for this provision might exonerate or discharge the bank shall in any way release the bank from any obligation hereunder.

4. We hereby engage with the beneficiary that a drawing under and in compliance with the terms and conditions of this letter of credit will be duly honored on presentation of the sight draft and certificate as specified without inquiring as to whether the beneficiary has the right to draw under this letter if credit and without recognizing any objection or claim of the applicant or any other party of whatsoever nature or kind except for any order from a court of competent jurisdiction.
5. Except as otherwise stated herein, this irrevocable standby letter of credit may not be amended, modified, terminated, revoked or cancelled without our written consent and the written consent of both applicant and beneficiary. Our liability under this credit is limited at the time of issuance to USD1,500,000.00 (One Million Five Hundred Thousand and 00/100 U.S. Dollars).
6. This irrevocable standby letter of credit shall expire July 30, 2005.
7. Demands may be made against this irrevocable standby letter of credit in one or more increments; however, the aggregate of such demands shall not exceed the amount set forth in paragraph (5) of this irrevocable standby letter of credit.
8. This letter of credit is transferable by the beneficiary in its entirety (but not in part) to any transferee whom HELCO may certify is a lending institution or representative of lending institutions providing debt finance to HELCO ("Lenders") and RBC Centura Bank, only, is authorized to act as the transferring bank. Transfer of HELCO's rights under this letter of credit to such transferee shall be effected upon the presentation to us of this letter of credit accompanied by a certificate in the form of Annex 1 attached hereto, duly completed and signed by the beneficiary. Upon such presentation, we shall forthwith transfer the same to your transferee. The correctness of the signature and title of the person signing the transfer form must be verified by your bank. In case of any transfer under this letter of credit, the draft and required statement must be executed by the transferee. This letter of credit may not be transferred to any person with which U.S. persons are prohibited from doing business with under U.S. Foreign Assets Control Regulations or other applicable U.S. laws and regulations.

Drafts drawn hereunder may be executed by the beneficiary. Any draft drawn will be considered as a presentation on behalf of the beneficiary and the amount drawn will be reduced from the amount available under the credit. In any event, any amount drawn hereunder may not exceed the aggregate amount stated in paragraph 5 of this letter of credit.

We hereby engage with the beneficiary that drafts accompanied by documents draw in strict compliance with the terms and conditions of this irrevocable standby letter of credit shall be duly honored by us if presented to us at our office located at 2000 Randolph Road, 2nd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit, on or before

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FAX NO.

P. 04/05



**RBC
Centura**

International Services - Standby L/C Unit
2000 Randolph Road, 2nd Floor
Charlotte, NC 28207
SWIFT: CNTAUS33
Telex: 49606655 CENTURABKINTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 FAX
1-800-938-6299

Irrevocable standby letter of credit no. SB002748
July 15, 2004
Page number 3

the expiration date. If a drawing made by the beneficiary hereunder does not, in any instance, conform to the terms and conditions of this irrevocable standby letter of credit, the bank shall give such beneficiary prompt notice that the drawing was not effected in accordance with the terms and conditions of this irrevocable standby letter of credit, stating the reasons therefore and that the bank will, upon such beneficiary's instructions, hold any documents at such beneficiary's disposal or return the same to such beneficiary. Upon being notified that the drawing was not effected in conformity with this irrevocable standby letter of credit, such beneficiary may attempt to correct any such non-conforming drawing to the extent that such beneficiary is entitled and able to do.

Presentations may also be made by hand delivery or messenger to: RBC Centura Bank, 2000 Randolph Road, 2nd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit.

This irrevocable standby letter of credit is subject to the Uniform Customs and Practice for documentary credits (1993 Revision), International Chamber of Commerce, Publication no. 500 (the "UNIFORM CUSTOMS"), to the extent applicable. This irrevocable standby letter of credit shall be deemed to be a contract governed by the Uniform Customs and the Laws of the State of Hawaii and, to the extent of any inconsistency between the UNIFORM CUSTOMS and the Laws of the State of Hawaii, the laws of the state of Hawaii shall control.

RBC CENTURA BANK

Glenda A. Martin
Authorized Signature

Maureen Kalds
Authorized Signature

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FAX NO.

P. 05/05



International Services - Standby L/C Unit
2000 Randolph Road, 2nd Floor
Charlotte, NC 28207
SWIFT: CNTAUS33
Telex: 49606655 CENTURABKINTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 FAX
1-800-938-6299

Annex 1
to Irrevocable standby letter of credit no. SB002748 dated July 15, 2004
Notice of Transfer

TO: RBC Centura Bank
2000 Randolph Road, 2nd Floor
Charlotte, NC 28207
Attention: International Services - Standby L/C Unit
Re: Irrevocable standby letter of credit no. SB002748

For value received, the undersigned beneficiary hereby irrevocably transfers to:

NAME OF TRANSFEREE

ADDRESS

all rights of the undersigned beneficiary to draw under the above letter of credit in its entirety.

By this transfer, all rights of the undersigned beneficiary in such letter of credit are transferred to the transferee and the transferee shall have the sole rights as beneficiary thereof, including sole rights relating to any amendments whether increases or extensions or other amendments and whether now existing or hereafter made, all amendments are to be advised direct to the transferee without necessity of any consent of or notice to the undersigned beneficiary.

The original of such letter of credit is returned herewith, and we ask you to endorse the transfer on the reverse hereof, and forward it direct to the transferee with your customary notice of transfer.

Sincerely,

NAME OF BENEFICIARY

AUTHORIZED NAME & TITLE

AUTHORIZED SIGNATURE

TELEPHONE NUMBER

The above signature, with title as stated, conforms with that on file with us and same is authorized for execution of such instruments on behalf of the beneficiary.

NAME & ADDRESS OF BANK

AUTHORIZED NAME & TITLE

AUTHORIZED SIGNATURE

TELEPHONE NUMBER



**RBC
Centura**

International Service - Standby LC Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
Tel: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Irrevocable Standby Letter of Credit Number SB003149

Issue Date: June 30, 2005

Expiry Date: June 30, 2006

Beneficiary:
Hawaii Electric Light Company, Inc. ("HELCO")
P.O. Box 1027
Hilo, Hawaii 96720-1027

Applicant:
Black River Energy, LLC
6000 Fairview Road, Suite 600
Charlotte, NC 28210

Attention: Financial Vice President (Tayne Sekimura)

We hereby establish our Irrevocable Standby letter of credit in the amount of USD1,500,000.00 (One Million Five Hundred Thousand and 00/100 U.S. Dollars) in your favor at the request and for the account of Black River Energy, LLC (hereinafter referred to as "BLACK RIVER") as follows:

Funds under this irrevocable standby letter of credit are available to the beneficiary against presentation to us, at our office located at 200 Providence Road, 3rd Floor, Charlotte, NC 28207, Attention: International Services - Standby LC Unit, of the original version of this letter of credit along with such beneficiary's draft drawn at sight on us, marked thereon "Drawn under irrevocable standby letter of credit no. SB003149", and accompanied by the following documents."

1. Original dated statement on the letterhead of HELCO purportedly signed by the Financial Vice President (Tayne Sekimura) [or on the letterhead of the administrative agent purportedly signed by an authorized officer of the administrative agent] stating: "An event has occurred which entitles HELCO to draw on irrevocable standby letter of credit no. SB003149. This statement is a demand for payment under irrevocable standby letter of credit no. SB003149."

And

2. A copy of written notification from HELCO to BLACK RIVER that (A) an event has occurred which entitles HELCO to draw on irrevocable standby letter of credit and (B) such beneficiary intends to make demand for payment under irrevocable standby letter of credit no. SB003149 by presenting the required statement purportedly signed by the Financial Vice President (Tayne Sekimura).

SPECIAL CONDITIONS:

1. Payment under this irrevocable standby letter of credit will be made to an account at such bank as HELCO shall stipulate. The amount or amounts demanded shall not exceed, in the aggregate, the amount of this irrevocable standby letter of credit.
2. Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever and by whomever imposed.
3. Any reference to the Power Purchase Agreement (as amended, amended and restated or otherwise modified from time to time, the "Power Purchase Agreement"), dated as of October 22, 1997, is for information purposes only

Continued on next page which forms an integral part of this Credit

GAM
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International Service - Standby L/C Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.J.F.T.: CNTAUS93
Telx: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Irrevocable standby letter of credit no. SB003149
June 30, 2005
Page number 2

and is not incorporated in nor made a part of this irrevocable standby letter of credit. No alterations in the terms of the Power Purchase Agreement or in the extent or nature of the payments to be made under the Power Purchase Agreement, and no allowance of time by you or other forbearance or concession or any other act or omission by you which put for this provision might exonerate or discharge the bank shall in any way release the bank from any obligation hereunder.

4. We hereby engage with the beneficiary that a drawing under and in compliance with the terms and conditions of this letter of credit will be duly honored on presentation of the sight draft and certificate as specified without inquiring as to whether the beneficiary has the right to draw under this letter if credit and without recognizing any objection or claim of the applicant or any other party of whatsoever nature or kind except for any order from a court of competent jurisdiction.
5. Except as otherwise stated herein, this irrevocable standby letter of credit may not be amended, modified, terminated, revoked or cancelled without our written consent and the written consent of both applicant and beneficiary. Our liability under this credit is limited at the time of issuance to USD1,500,000.00 (One Million Five Hundred Thousand and 00/100 U.S. Dollars).
6. This irrevocable standby letter of credit shall expire June 30, 2006.
7. Demands may be made against this irrevocable standby letter of credit in one or more increments; however, the aggregate of such demands shall not exceed the amount set forth in paragraph (5) of this irrevocable standby letter of credit.
8. This letter of credit is transferable by the beneficiary in its entirety (but not in part) to any transferee whom HELCO may certify is a lending institution or representative of lending institutions providing debt finance to HELCO ("Lenders") and RBC Centura Bank, only, is authorized to act as the transferring bank. Transfer of HELCO's rights under this letter of credit to such transferee shall be effected upon the presentation to us of this letter of credit accompanied by a certificate in the form of Annex 1 attached hereto, duly completed and signed by the beneficiary. Upon such presentation, we shall forthwith transfer the same to your transferee. The correctness of the signature and title of the person signing the transfer form must be verified by your bank. In case of any transfer under this letter of credit, the draft and required statement must be executed by the transferee. This letter of credit may not be transferred to any person with which U.S. persons are prohibited from doing business with under U.S. Foreign Assets Control Regulations or other applicable U.S. laws and regulations.

Drafts drawn hereunder may be executed by the beneficiary. Any draft drawn will be considered as a presentation on behalf of the beneficiary and the amount drawn will be reduced from the amount available under the credit. In any event, any amount drawn hereunder may not exceed the aggregate amount stated in paragraph 5 of this letter of credit.

We hereby engage with the beneficiary that drafts accompanied by documents draw in strict compliance with the terms and conditions of this irrevocable standby letter of credit shall be duly honored by us if presented to us at our office located at 200 Providence Road, 3rd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit, on or before

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gam
llb



**RBC
Centura**

International Service - Standby L/C Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
Telex: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Irrevocable standby letter of credit no. SB003149
June 30, 2005
Page number 3

the expiration date. If a drawing made by the beneficiary hereunder does not, in any instance, conform to the terms and conditions of this irrevocable standby letter of credit, the bank shall give such beneficiary prompt notice that the drawing was not effected in accordance with the terms and conditions of this irrevocable standby letter of credit, stating the reasons therefore and that the bank will, upon such beneficiary's instructions, hold any documents at such beneficiary's disposal or return the same to such beneficiary. Upon being notified that the drawing was not effected in conformity with this irrevocable standby letter of credit, such beneficiary may attempt to correct any such non-conforming drawing to the extent that such beneficiary is entitled and able to do.

Presentations may also be made by hand delivery or messenger to: RBC Centura Bank, 200 Providence Road, 3rd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit.

This irrevocable standby letter of credit is subject to the Uniform Customs and Practice for documentary credits (1993 Revision), International Chamber of Commerce, Publication no. 500 (the "UNIFORM CUSTOMS"), to the extent applicable. This irrevocable standby letter of credit shall be deemed to be a contract governed by the Uniform Customs and the Laws of the State of Hawaii and, to the extent of any inconsistency between the UNIFORM CUSTOMS and the Laws of the State of Hawaii, the laws of the state of Hawaii shall control.

RBC CENTURA BANK

Blenda A. Martin
Authorized Signature

Mouk Kaku
Authorized Signature



International Service - Standby L/C Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
Tel: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Annex 1
to Irrevocable standby letter of credit no. SB003149 dated June 30, 2005
Notice of Transfer

TO: RBC Centura Bank
200 Providence Road, 3rd Floor
Charlotte, NC 28207
Attention: International Services - Standby L/C Unit
Re: Irrevocable standby letter of credit no. SB003149

For value received, the undersigned beneficiary hereby irrevocably transfers to:

NAME OF TRANSFEREE

ADDRESS

all rights of the undersigned beneficiary to draw under the above letter of credit in its entirety.

By this transfer, all rights of the undersigned beneficiary in such letter of credit are transferred to the transferee and the transferee shall have the sole rights as beneficiary thereof, including sole rights relating to any amendments whether increases or extensions or other amendments and whether now existing or hereafter made, all amendments are to be advised direct to the transferee without necessity of any consent of or notice to the undersigned beneficiary.

The original of such letter of credit is returned herewith, and we ask you to endorse the transfer on the reverse hereof, and forward it direct to the transferee with your customary notice of transfer.

Sincerely,

NAME OF BENEFICIARY

AUTHORIZED NAME & TITLE

AUTHORIZED SIGNATURE

TELEPHONE NUMBER

The above signature, with title as stated, conforms with that on file with us and same is authorized for execution of such instruments on behalf of the beneficiary.

NAME & ADDRESS OF BANK

AUTHORIZED NAME & TITLE

AUTHORIZED SIGNATURE

TELEPHONE NUMBER

gum



International Service - Standby L/C Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
Telx: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Irrevocable Standby Letter of Credit Number SB003150

Issue Date: June 30, 2005

Expiry Date: June 30, 2006

Applicant:
Black River Energy, LLC
6000 Fairview Road, Suite 600
Charlotte, NC 28210

Beneficiary:
Hawaii Electric Light Company, Inc. ("HELCO")
P.O. Box 1027
Hilo, Hawaii 96720-1027

Attention: Financial Vice President (Tayne Sekimura)

We hereby establish our Irrevocable Standby letter of credit in the amount of USD1,500,000.00 (One Million Five Hundred Thousand and 00/100 U.S. Dollars) in your favor at the request and for the account of Black River Energy, LLC (hereinafter referred to as "BLACK RIVER") as follows:

Funds under this irrevocable standby letter of credit are available to the beneficiary against presentation to us, at our office located at 200 Providence Road, 3rd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit, of the original version of this letter of credit along with such beneficiary's draft drawn at sight on us, marked thereon "Drawn under irrevocable standby letter of credit no. SB003150", and accompanied by the following documents:

1. Original dated statement on the letterhead of HELCO purportedly signed by the Financial Vice President (Tayne Sekimura) [or on the letterhead of the administrative agent purportedly signed by an authorized officer of the administrative agent] stating: "An event has occurred which entitles HELCO to draw on irrevocable standby letter of credit no. SB003150. This statement is a demand for payment under irrevocable standby letter of credit no. SB003150."

And

2. A copy of written notification from HELCO to BLACK RIVER that (A) an event has occurred which entitles HELCO to draw on irrevocable standby letter of credit and (B) such beneficiary intends to make demand for payment under irrevocable standby letter of credit no. SB003150 by presenting the required statement purportedly signed by the Financial Vice President (Tayne Sekimura).

SPECIAL CONDITIONS:

1. Payment under this irrevocable standby letter of credit will be made to an account at such bank as HELCO shall stipulate. The amount or amounts demanded shall not exceed, in the aggregate, the amount of this irrevocable standby letter of credit.
2. Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever and by whomever imposed.
3. Any reference to the Power Purchase Agreement (as amended, amended and restated or otherwise modified from time to time, the "Power Purchase Agreement"), dated as of October 22, 1997, is for information purposes only

Continued on next page which forms an integral part of this Credit

Jan 11/12



International Service - Standby L/C Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
Telx: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Irrevocable standby letter of credit no. SB003150
June 30, 2005
Page number 2

and is not incorporated in nor made a part of this irrevocable standby letter of credit. No alterations in the terms of the Power Purchase Agreement or in the extent or nature of the payments to be made under the Power Purchase Agreement, and no allowance of time by you or other forbearance or concession or any other act or omission by you which but for this provision might exonerate or discharge the bank shall in any way release the bank from any obligation hereunder.

4. We hereby engage with the beneficiary that a drawing under and in compliance with the terms and conditions of this letter of credit will be duly honored on presentation of the sight draft and certificate as specified without inquiring as to whether the beneficiary has the right to draw under this letter if credit and without recognizing any objection or claim of the applicant or any other party of whatsoever nature or kind except for any order from a court of competent jurisdiction.
5. Except as otherwise stated herein, this irrevocable standby letter of credit may not be amended, modified, terminated, revoked or cancelled without our written consent and the written consent of both applicant and beneficiary. Our liability under this credit is limited at the time of issuance to USD1,500,000.00 (One Million Five Hundred Thousand and 00/100 U.S. Dollars).
6. This irrevocable standby letter of credit shall expire June 30, 2006.
7. Demands may be made against this irrevocable standby letter of credit in one or more increments; however, the aggregate of such demands shall not exceed the amount set forth in paragraph (5) of this irrevocable standby letter of credit.
8. This letter of credit is transferable by the beneficiary in its entirety (but not in part) to any transferee whom HELCO may certify is a lending institution or representative of lending institutions providing debt finance to HELCO ("Lenders") and RBC Centura Bank, only, is authorized to act as the transferring bank. Transfer of HELCO's rights under this letter of credit to such transferee shall be effected upon the presentation to us of this letter of credit accompanied by a certificate in the form of Annex 1 attached hereto, duly completed and signed by the beneficiary. Upon such presentation, we shall forthwith transfer the same to your transferee. The correctness of the signature and title of the person signing the transfer form must be verified by your bank. In case of any transfer under this letter of credit, the draft and required statement must be executed by the transferee. This letter of credit may not be transferred to any person with which U.S. persons are prohibited from doing business with under U.S. Foreign Assets Control Regulations or other applicable U.S. laws and regulations.

Drafts drawn hereunder may be executed by the beneficiary. Any draft drawn will be considered as a presentation on behalf of the beneficiary and the amount drawn will be reduced from the amount available under the credit. In any event, any amount drawn hereunder may not exceed the aggregate amount stated in paragraph 5 of this letter of credit.

We hereby engage with the beneficiary that drafts accompanied by documents drawn in strict compliance with the terms and conditions of this irrevocable standby letter of credit shall be duly honored by us if presented to us at our office located at 200 Providence Road, 3rd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit, on or before

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**RBC
Centura**

International Service - Standby L/C Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
Telx: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Irrevocable standby letter of credit no. SB003150
June 30, 2005
Page number 3

the expiration date. If a drawing made by the beneficiary hereunder does not, in any instance, conform to the terms and conditions of this irrevocable standby letter of credit, the bank shall give such beneficiary prompt notice that the drawing was not effected in accordance with the terms and conditions of this irrevocable standby letter of credit, stating the reasons therefore and that the bank will, upon such beneficiary's instructions, hold any documents at such beneficiary's disposal or return the same to such beneficiary. Upon being notified that the drawing was not effected in conformity with this irrevocable standby letter of credit, such beneficiary may attempt to correct any such non-conforming drawing to the extent that such beneficiary is entitled and able to do.

Presentations may also be made by hand delivery or messenger to: RBC Centura Bank, 200 Providence Road, 3rd Floor, Charlotte, NC 28207, Attention: International Services - Standby L/C Unit.

This irrevocable standby letter of credit is subject to the Uniform Customs and Practice for documentary credits (1993 Revision), International Chamber of Commerce, Publication no. 500 (the "UNIFORM CUSTOMS"), to the extent applicable. This irrevocable standby letter of credit shall be deemed to be a contract governed by the Uniform Customs and the Laws of the State of Hawaii and, to the extent of any inconsistency between the UNIFORM CUSTOMS and the Laws of the State of Hawaii, the laws of the state of Hawaii shall control.

RBC CENTURA BANK

Blenda A. Martin
Authorized Signature

Micah Kaldie
Authorized Signature



**RBC
Centura**

International Service - Standby L/C Unit
200 Providence Rd., Suite 300
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
Telex: 49606655 CENTURABKINGTL
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 fax
1-800-938-6299

Annex 1
to Irrevocable standby letter of credit no. SB003150 dated June 30, 2005
Notice of Transfer

TO: RBC Centura Bank
200 Providence Road, 3rd Floor
Charlotte, NC 28207
Attention: International Services - Standby L/C Unit
Re: Irrevocable standby letter of credit no. SB003150

For value received, the undersigned beneficiary hereby irrevocably transfers to:

NAME OF TRANSFEREE

ADDRESS

all rights of the undersigned beneficiary to draw under the above letter of credit in its entirety.

By this transfer, all rights of the undersigned beneficiary in such letter of credit are transferred to the transferee and the transferee shall have the sole rights as beneficiary thereof, including sole rights relating to any amendments whether increases or extensions or other amendments and whether now existing or hereafter made, all amendments are to be advised direct to the transferee without necessity of any consent of or notice to the undersigned beneficiary.

The original of such letter of credit is returned herewith, and we ask you to endorse the transfer on the reverse hereof, and forward it direct to the transferee with your customary notice of transfer.

Sincerely,

NAME OF BENEFICIARY

AUTHORIZED NAME & TITLE

AUTHORIZED SIGNATURE

TELEPHONE NUMBER

The above signature, with title as stated, conforms with that on file with us and same is authorized for execution of such instruments on behalf of the beneficiary.

NAME & ADDRESS OF BANK

AUTHORIZED NAME & TITLE

AUTHORIZED SIGNATURE

TELEPHONE NUMBER

gam

AMENDMENT TO CONSENT AND AGREEMENT
CONCERNING CERTAIN ASSETS
OF JONES CAPITAL, LLC

THIS AMENDMENT TO CONSENT AND AGREEMENT CONCERNING CERTAIN ASSETS OF JONES CAPITAL, LLC (this "Amendment") is made and entered into effective as of May 26, 2006, by and among BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Black River Energy"), HAMAKUA ENERGY PARTNERS, LP, a Hawaii limited liability partnership ("HEP"), and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO").

R E C I T A L S

A. Black River Energy, HEP and HELCO have entered into that certain Consent and Agreement Concerning Certain Assets of Jones Capital, LLC, dated and effective May 26, 2004 (the "Consent and Agreement"), which, among other things, concerns Black River Energy's causing the issuance and periodic renewal of a Letter of Credit and delivery of same to HELCO.

B. Black River Energy, HEP and HELCO each desire to amend the Consent and Agreement to memorialize a modification to the terms and conditions concerning Black River Energy's periodic renewal of the Letter of Credit.

A G R E E M E N T

Black River Energy, HEP and HELCO hereby agree to amend the Consent and Agreement as follows:

1. Subparagraph 2(c) of Consent and Agreement. Subparagraph 2(c) of the Consent and Agreement (concerning the Letter of Credit) is hereby deleted in its entirety and replaced as follows:

"(c) from the date the BRE Guarantee is to be issued and delivered to HELCO pursuant to paragraph 1 above through the thirtieth (30th) day following the period the BRE Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) of the BRE Guarantee, Black River Energy shall maintain or cause to be maintained in full force and effect a Letter of Credit, and shall, no later than thirty (30) days prior to the expiration of the term of any Letter of Credit then in effect, cause either (i) the issuer of the then current Letter of Credit or (ii) a new issuer of a replacement Letter of Credit to notify HELCO that it intends to replace such Letter of Credit with a newly issued Letter of Credit, and any failure to maintain a Letter of Credit in full force and effect or provide notice of a replacement Letter of Credit as aforesaid, shall constitute grounds for HELCO to draw down the full amount of the Letter of Credit regardless of whether or not HELCO would otherwise then be entitled to demand payment from HEP under the PPA or from Black River Energy under the BRE Guarantee, and any such amounts drawn on the Letter of Credit pursuant to this subparagraph (c) shall be (i) held by HELCO as security for Black River Energy's performance of its obligation to maintain and replace the Letter of Credit as aforesaid, until such time as a new Letter of Credit is issued and

delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid over to Black River Energy or its designee without interest;"

2. Subparagraph 7(c) of the Consent and Agreement. Subparagraph 7(c) (concerning "Entire Agreement") of the Consent and Agreement shall be amended to include this Amendment as part of the Consent and Agreement.

3. Defined Terms. Unless otherwise indicated, the capitalized terms used in this Amendment shall have the same meanings as set forth for those terms in the Consent and Agreement.

4. No Other Change or Effect. Except as expressly provided in this Amendment, in all other respects, the Consent and Agreement shall remain unmodified and in full force and effect.

5. Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6. Facsimile Signatures. Facsimile signatures on this Amendment shall be treated as originals, provided that the party so executing this Amendment by facsimile shall send an original signed confirmation copy of this Amendment to the other party by mail.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective duly authorized officers as of the date first written above.

BLACK RIVER ENERGY, LLC,
a Delaware limited liability company

By William A. Garnett
Name: William A. Garnett
Its: President

HAWAII ELECTRIC LIGHT COMPANY,
INC., a Hawaii corporation

By Tayne S. Y. Sekimura
Name: Tayne S. Y. Sekimura
Its: Vice President

HAMAKUA ENERGY PARTNERS, LP, a
Hawaii limited liability partnership

By William A. Garnett
Name: William A. Garnett
Its: President

By Lorie Ann Nagata
Name: Lorie Ann Nagata
Its: Treasurer

**AMENDMENT TO GUARANTEE AGREEMENT
BETWEEN BLACK RIVER ENERGY, LLC
AND HAWAII ELECTRIC LIGHT COMPANY, INC.**

THIS AMENDMENT TO GUARANTEE AGREEMENT BETWEEN BLACK RIVER ENERGY, LLC AND HAWAII ELECTRIC LIGHT COMPANY, INC. (this "Amendment") is made entered into effective as of May 26, 2006, by and between HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO") with principal offices in Hilo, Hawaii, and BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Guarantor") with principal offices in Charlotte, North Carolina.

RECITALS

A. HELCO and Black River Energy, have entered into that certain Guarantee Agreement Between Black River Energy, LLC and Hawaii Electric Light Company, Inc., undated but signed on May 26, 2004 (the "Guarantee"), which, among other things, concerns Guarantor's causing the issuance and periodic renewal of a Letter of Credit and delivery of same to HELCO.

B. HELCO and Guarantor each desire to amend the Guarantee to memorialize a modification to the terms and conditions concerning Guarantor's periodic renewal of the Letter of Credit.

AGREEMENT

HELCO and Guarantor hereby agree to amend the Guarantee as follows:

1. Section 2(d) of Guarantee. Section 2(d) of the Guarantee (concerning the Letter of Credit) is hereby deleted in its entirety and replaced as follows:

"(d) As a material obligation of Guarantor under this Guarantee, Guarantor shall, from the date first written above through the thirtieth (30th) day following the period this Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) hereof, maintain or cause to be maintained in full force and effect a Letter of Credit as required by the Consent and Agreement, and shall, no later than thirty (30) days prior to the expiration of the term of any Letter of Credit then in effect, cause either (i) the issuer of the then current Letter of Credit or (ii) a new issuer of a replacement Letter of Credit to notify HELCO that it intends to replace such Letter of Credit with a newly issued Letter of Credit, and any failure to maintain a Letter of Credit in full force and effect or provide notice of a replacement Letter of Credit as aforesaid, shall constitute grounds for HELCO to draw down the full amount of the Letter of Credit regardless of whether or not HELCO would otherwise then be entitled to demand payment from Guarantor under this Guarantee. Any such amounts drawn on the Letter of Credit pursuant to this subparagraph (d) shall be (i) held by HELCO as security for Guarantor's performance of its obligation to maintain and replace the Letter of Credit as aforesaid, until such time as a new Letter of Credit is issued and delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid to Guarantor or its designee without interest;"

2. Defined Terms. Unless otherwise indicated, the capitalized terms used in this Amendment shall have the same meanings as set forth for those terms in the Guarantee.

3. No Other Change or Effect. Except as expressly provided in this Amendment, in all other respects, the Guarantee shall remain unmodified and in full force and effect.

4. Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

5. Facsimile Signatures. Facsimile signatures on this Amendment shall be treated as originals, provided that the party so executing this Amendment by facsimile shall send an original signed confirmation copy of this Amendment to the other party by mail.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective duly authorized officers as of the date first written above.

HELCO:

/LIGHT

HAWAII ELECTRIC COMPANY, INC.

By Tayne S. Y. Sekimura
Name: Tayne S. Y. Sekimura
Its: Vice President

By Lorie Ann Nagata
Name: Lorie Ann Nagata
Its: Treasurer

GUARANTOR:

BLACK RIVER ENERGY, LLC

By William A. Garnett
Name: William A. Garnett
Its: President

By _____
Name:
Its:

**AMENDMENT TO CONSENT AND AGREEMENT
CONCERNING CERTAIN ASSETS
OF
TPS HAMAKUA, INC. AND TPS HAWAII, INC.**

THIS AMENDMENT TO CONSENT AND AGREEMENT CONCERNING CERTAIN ASSETS OF TPS HAMAKUA, INC. AND TPS HAWAII, INC. (this "Amendment") is made and entered into effective as of May 26, 2006, by and among BR LANDING, LLC a Delaware limited liability company, ("BR Landing"), BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Black River Energy"), HAMAKUA ENERGY PARTNERS, LP, a Hawaii limited liability partnership ("HEP"), and HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO").

RECITALS

A. BR Landing, Black River Energy, HEP and HELCO have entered into that certain Consent and Agreement Concerning Certain Assets of Jones Capital, LLC, dated and effective July 15, 2004 (the "Consent and Agreement"), which, among other things, concerns Black River Energy's causing the issuance and periodic renewal of a Letter of Credit and delivery of same to HELCO.

B. BR Landing, Black River Energy, HEP and HELCO each desire to amend the Consent and Agreement to memorialize a modification to the terms and conditions concerning Black River Energy's periodic renewal of the Letter of Credit.

AGREEMENT

BR Landing, Black River Energy, HEP and HELCO hereby agree to amend the Consent and Agreement as follows:

1. Subparagraph 2(c) of Consent and Agreement. Subparagraph 2(c) of the Consent and Agreement (concerning the Letter of Credit) is hereby deleted in its entirety and replaced as follows:

"(c) from the date the Buyer Guarantee is to be issued and delivered to HELCO pursuant to paragraph 1 above through the thirtieth (30th) day following the period the Buyer Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) of the Buyer Guarantee, Black River Energy shall maintain or cause Buyer to maintain in full force and effect a Letter of Credit, and shall, no later than thirty (30) days prior to the expiration of the term of any Letter of Credit then in effect, cause either (i) the issuer of the then current Letter of Credit or (ii) a new issuer of a replacement Letter of Credit to notify HELCO that it intends to replace such Letter of Credit with a newly issued Letter of Credit, and any failure to maintain a Letter of Credit in full force and effect or provide notice of a replacement Letter of Credit as aforesaid, shall constitute grounds for HELCO to draw down the full amount of the Letter of Credit regardless of whether or not HELCO would otherwise then be entitled to demand payment from HEP under the PPA or from Black River Energy under the Buyer Guarantee, and any such amounts drawn on the Letter of Credit pursuant to this subparagraph (c)

shall be (i) held by HELCO as security for Black River Energy's performance of its obligation to maintain and replace the Letter of Credit as aforesaid, until such time as a new Letter of Credit is issued and delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid over to Black River Energy or its designee without interest;"

2. Subparagraph 7(b) of the Consent and Agreement. Subparagraph 7(b) (concerning "Entire Agreement") of the Consent and Agreement shall be amended to include this Amendment as part of the Consent and Agreement.

3. Defined Terms. Unless otherwise indicated, the capitalized terms used in this Amendment shall have the same meanings as set forth for those terms in the Consent and Agreement.

4. No Other Change or Effect. Except as expressly provided in this Amendment, in all other respects, the Consent and Agreement shall remain unmodified and in full force and effect.

5. Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6. Facsimile Signatures. Facsimile signatures on this Amendment shall be treated as originals, provided that the party so executing this Amendment by facsimile shall send an original signed confirmation copy of this Amendment to the other party by mail.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective duly authorized officers as of the date first written above.

Signature page follows; the remainder of this page is intentionally left blank.

BLACK RIVER ENERGY, LLC,
a Delaware limited liability company

By William A. Garnett
Name: William A. Garnett
Its: President

HAWAII ELECTRIC LIGHT COMPANY,
INC., a Hawaii corporation

By Tayne S. Y. Sekimura
Name: Tayne S. Y. Sekimura
Its: Vice President

BR LANDING LLC,
a Delaware limited liability company

By William A. Garnett
Name: William A. Garnett
Its: President

By Lorie Ann Nagata
Name: Lorie Ann Nagata
Its: Treasurer

HAMAKUA ENERGY PARTNERS, LP, a
Hawaii limited liability partnership

By William A. Garnett
Name: William A. Garnett
Its: President

**AMENDMENT TO GUARANTEE AGREEMENT
BETWEEN BLACK RIVER ENERGY, LLC
AND HAWAII ELECTRIC LIGHT COMPANY, INC.**

THIS AMENDMENT TO GUARANTEE AGREEMENT BETWEEN BLACK RIVER ENERGY, LLC AND HAWAII ELECTRIC LIGHT COMPANY, INC. (this "Amendment") is made an entered into effective as of May 26, 2006, by and between HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation ("HELCO") with principal offices in Hilo, Hawaii, and BLACK RIVER ENERGY, LLC, a Delaware limited liability company ("Guarantor") with principal offices in Charlotte, North Carolina.

RECITALS

A. HELCO and Black River Energy, have entered into that certain Guarantee Agreement Between Black River Energy, LLC and Hawaii Electric Light Company, Inc., dated and effective July 15, 2004 (the "Guarantee"), which, among other things, concerns Guarantor's causing the issuance and periodic renewal of a Letter of Credit and delivery of same to HELCO.

B. HELCO and Guarantor each desire to amend the Guarantee to memorialize a modification to the terms and conditions concerning Guarantor's periodic renewal of the Letter of Credit.

AGREEMENT

HELCO and Guarantor hereby agree to amend the Guarantee as follows:

1. Section 2(d) of Guarantee. Section 2(d) of the Guarantee (concerning the Letter of Credit) is hereby deleted in its entirety and replaced as follows:

"(d) As a material obligation of Guarantor under this Guarantee, Guarantor shall, from the date first written above through the thirtieth (30th) day following the period this Guarantee is to remain in full force and effect pursuant to the second sentence of Section 2(b) hereof, maintain or cause to be maintained in full force and effect a Letter of Credit as required by the Consent and Agreement, and shall, no later than thirty (30) days prior to the expiration of the term of any Letter of Credit then in effect, cause either (i) the issuer of the then current Letter of Credit or (ii) a new issuer of a replacement Letter of Credit to notify HELCO that it intends to replace such Letter of Credit with a newly issued Letter of Credit, and any failure to maintain a Letter of Credit in full force and effect or provide notice of a replacement Letter of Credit as aforesaid, shall constitute grounds for HELCO to draw down the full amount of the Letter of Credit regardless of whether or not HELCO would otherwise then be entitled to demand payment from Guarantor under this Guarantee. Any such amounts drawn on the Letter of Credit pursuant to this subparagraph (d) shall be (i) held by HELCO as security for Guarantor's performance of its obligation to maintain and replace the Letter of Credit as aforesaid, until such time as a new Letter of Credit is issued and delivered to HELCO, and (ii) upon the issuance and delivery of a new Letter of Credit as aforesaid, paid to Guarantor or its designee without interest;"

2. Defined Terms. Unless otherwise indicated, the capitalized terms used in this

Amendment shall have the same meanings as set forth for those terms in the Guarantee.

3. No Other Change or Effect. Except as expressly provided in this Amendment, in all other respects, the Guarantee shall remain unmodified and in full force and effect.

4. Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

5. Facsimile Signatures. Facsimile signatures on this Amendment shall be treated as originals, provided that the party so executing this Amendment by facsimile shall send an original signed confirmation copy of this Amendment to the other party by mail.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective duly authorized officers as of the date first written above.

HELCO:

/LIGHT

HAWAII ELECTRIC COMPANY, INC.

By Tayne S. Y. Sekimura
Name: Tayne S. Y. Sekimura
Its: Vice President

By Lorie Ann Nagata
Name: Lorie Ann Nagata
Its: Treasurer

GUARANTOR:

BLACK RIVER ENERGY, LLC

By William A. Garnett
Name: William A. Garnett
Its: President

By _____
Name:
Its:



International Services - Standby L/C Unit
200 Providence Rd., 3rd Floor
Charlotte, NC 28207
S.W.I.F.T.: CNTAUS33
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 Fax
1-800-938-6299

Amendment to Irrevocable Standby Letter of Credit Number SB003149
June 30, 2006

Beneficiary:
Hawaii Electric Light Company, Inc ("HELCO")
P.O. Box 1027
Hilo, Hawaii 96720-1027

Applicant:
Black River Energy, LLC
6000 Fairview Road, Suite 600
Charlotte, NC 28210

Gentlemen:

We hereby amend our above referenced letter of credit as follows:

-Paragraph 6 under Special Conditions now to read:

This irrevocable standby letter of credit shall expire June 30, 2007 ("Expiration Date");
Provided that we shall notify you by means of written notice at least thirty (30) days
prior to the Expiration Date of our intention to either extend this Letter of Credit for a
period of one (1) year from the Expiration Date or of our intention not to extend this
Letter of Credit. In the event we send a notice not to extend this Letter of Credit as
provided herein, the Beneficiary may draw on this Letter of Credit, provided that such
drawing is accompanied by the signed statements provided for under this Letter of
Credit.

All other terms and conditions remain unchanged.

Sincerely,

RBC Centura Bank

A handwritten signature in cursive script that reads 'Glenda A. Martin'.

Authorized Signature

A handwritten signature in cursive script that reads 'Monah Kah'.

Authorized Signature



International Services - Standby LC Unit
200 Providence Rd., 3rd Floor
Charlotte, NC 28207
S.W.J.F.T.: ONTAUS33
(704) 686-1467 OR (704) 686-1194
(704) 686-1498 Fax
1-800-938-6299

Amendment to Irrevocable Standby Letter of Credit Number SB003150
June 30, 2006

Beneficiary:
Hawaii Electric Light Company, Inc ("HELCO")
P.O. Box 1027
Hilo, Hawaii 96720-1027

Applicant:
Black River Energy, LLC
6000 Fairview Road, Suite 600
Charlotte, NC 28210

Gentlemen:

We hereby amend our above referenced letter of credit as follows:

-Paragraph 6 under Special Conditions now to read:

This irrevocable standby letter of credit shall expire June 30, 2007 ("Expiration Date");
Provided that we shall notify you by means of written notice at least thirty (30) days
prior to the Expiration Date of our intention to either extend this Letter of Credit for a
period of one (1) year from the Expiration Date or of our intention not to extend this
Letter of Credit. In the event we send a notice not to extend this Letter of Credit as
provided herein, the Beneficiary may draw on this Letter of Credit, provided that such
drawing is accompanied by the signed statements provided for under this Letter of
Credit.

All other terms and conditions remain unchanged.

Sincerely,

RBC Centura Bank

A handwritten signature in cursive script, reading 'Shonda A. Martin', written over a horizontal line.
Authorized Signature

A handwritten signature in cursive script, reading 'Abraham Lee', written over a horizontal line.
Authorized Signature



CA-IR-464

Ref: HELCO-920 & Response to CA-IR-140 (Pension Costs).

Part (a) of CA-IR-140 requested a copy of the 2006 pension actuarial study. In response thereto, the Company stated that completion of the valuation report had been delayed due to the Pension Protection Act of 2006 and that the report should be completed in September depending on when the President signs the bill. Please provide the following:

- a. Has the referenced actuarial report been finalized?
- b. If the response to part (a) above is affirmative:
 1. Please indicate when the 2006 study was completed.
 2. Please provide a copy of the report as originally requested by CA-IR-140.
- c. If the response to part (a) above is negative:
 1. Please provide the Company's best estimate as to when the report will be finalized.
 2. Please provide a copy of the study upon completion. [Note: This request is considered to be ongoing until such time as the final 2006 actuarial pension study is completed and provided to the Consumer Advocate.]
- d. Please update and revise HELCO-920, as necessary, to reflect the final contribution and NPPC amounts from the 2006 actuarial report.

HELCO Response:

- a. Yes, the actuarial valuation report as of January 1, 2006, for the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries has been finalized.
- b.
 1. The valuation report was received on September 11, 2006.
 2. The valuation report is provided as Attachment 1.
- c. Not applicable.
- d. Updated information as reflected in HELCO-920 is attached on page 60 of this IR response.

Due to the voluminous nature of the information, one copy of pages 3 to 59 of 60 will be provided to the Consumer Advocate and the Public Utilities Commission under separate transmittal.

**Retirement Plan for
Employees of
Hawaiian Electric Industries, Inc.
and Participating Subsidiaries**

**Valuation as of
January 1, 2006**

INDIVIDUAL INFORMATION ON COMPANIES
OTHER THAN HELCO DELETED

WWW.WATSONWYATT.COM

Prepared by:

Watson Wyatt Worldwide
737 Bishop Street, Suite 2340
Honolulu, Hawaii 96813
(808) 535-0500

September, 2006

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A. Summary of Valuation Results

Background

This report, prepared at the request of Hawaiian Electric Industries, Inc., presents the results of the actuarial valuation as of January 1, 2006 of the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries. Employers participating in the plan are:

- Hawaiian Electric Company, Inc. (HECO)
- Hawaii Electric Light Company, Inc. (HELCO)
- Maui Electric Company, Limited (MECO)
- Hawaiian Electric Industries, Inc. (HEI)

The report is designed to provide to management and to the Pension Investment Committee pertinent information about the status of the plan, to provide the source documentation for determining the minimum required contribution and the maximum tax deductible contribution, and to provide information needed for financial reporting.

Range of Contributions

The contributions were calculated in accordance with provisions of the recently enacted Pension Protection Act of 2006. The maximum tax-deductible contribution and the minimum contribution required to avoid a funding deficiency are shown in this section for the 2005 and the 2006 plan years. In addition to the dollar amounts, the contributions are also shown as a percentage of covered payroll. The maximum tax-deductible contribution is:

	Maximum Deductible Contribution	
	2005	2006

HELCO	14,519,164 78.34%	64,754,055 328.68%
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The maximum tax-deductible contributions include one full year's interest which can be deducted even though contributions may be made before the end of the year. The deductible contribution related to other retirement programs such as the Hawaiian Electric Industries Retirement Savings Plan (HEIRS) may be limited if contribution to all plans exceed 25% of compensation. The combined limitation should be analyzed if total contributions exceed 25% of covered compensation.

The minimum contribution required to avoid a funding deficiency is shown below:

	Minimum Required Contribution	
	2005	2006
HELCO	0 0%	0 0%

The minimum required contribution shown above assumes payment at the end of the year or during the allowable accrual period thereafter.

Section VII provides additional information on the calculation of the minimum required and maximum deductible contributions.

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Basic Data Comparison

The table below shows a summary of key employee data used in the 2005 and 2006 valuations.

	2005	2006
• Total Covered Payroll for Active Participants	\$131,950,104	\$140,047,127
• Number of Participants		
(a) Active Participants	1,987	2,064
(b) Retirees and Survivors	1,471	1,520
(c) Vested Former Participants	268	273
(d) Transferred Participants	5	5
(e) Disabled Participants	9	10
• Averages for Active Participants		
(a) Years of Past Service	14.02	13.53
(b) Attained Age	45.32	45.15
(c) Annual Pay	66,407	67,852
(d) Annual Retirement Benefit at Age 65	96,707	99,632

A comparison of basic data between two years can often provide insight into reasons why valuation results change from one year to the next.

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Valuation Comparison with Prior Year

There were changes in the interest rates used to calculate current liability. For the current liability maximum deductible contribution, the interest rate was increased from 4.59% to 5.19%. For the deficit reduction contribution exemption test, the interest rate was decreased from 6.10% to 5.77%. For all other purposes, the interest rate was decreased from 6.10% to 5.19%. The provision from the Pension Funding Equity Act of 2004 that allowed use of the 30-year Treasury rate to determine maximum deductible contributions has been repealed. The resulting interest rate used to determine the maximum deductible contribution reverts back to the same interest rate as used to determine the current liability for minimum contributions, starting with the plan year beginning in 2006.

Further, the Pension Protection Act of 2006 increased the maximum deductible contribution for plan years beginning in 2006 and 2007 to an amount equal to the excess of 150% of the plan's current liability over the value of plan assets.

Review of Valuation

The minimum contribution requirement is zero this year because the plan is under the full funding limitation. The maximum deductible contribution is equal to \$461,694,248 as of December 31, 2006.

Section VII.C. shows that the plan experienced a loss of \$568,234 during the 2005 plan year. This loss consisted of an asset gain of \$1,274,912 and a liability loss of \$1,843,146:

- Asset gain: As discussed on page 5, the valuation assets return was 8.68% during 2005 whereas 8.5% had been assumed.
- Liability loss: The actuarial liabilities are greater than expected due primarily to mortality losses and early retirements.

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B. Other Highlights

Investment Return on Assets

The dollar-weighted rate of return on market value of assets was 7.38% for 2005. An alternative value of assets (the actuarial valuation value) is used for determining the plan contributions, which is described in more detail in Section IV.C. The 2005 rate of return on the actuarial valuation value was 8.68%, again calculated on a dollar-weighted basis.

The rates of return over the latest five-year period are shown below:

Plan Year End	Investment Return	
	Market Value	Actuarial Valuation Value
12/31/2005	7.38%	8.68%
12/31/2004	10.13	8.67
12/31/2003	23.30	2.29 ¹
12/31/2002	(13.90)	(14.69)
12/31/2001	(10.26)	13.45
5-Year Average	2.41%	3.18%

Section IV.C. provides additional investment experience.

Funded Status of the Plan

Section II of the report sets forth information on accumulated plan benefits needed for several purposes, including financial reporting. The actuarial present values calculated for this purpose are based on a 5.75% interest assumption, the same discount rate assumption used for financial disclosure under FAS No. 87.

¹ Includes a 19.84% loss due to the change in asset method. The "return" was 22.13% under the prior method.

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The following table summarizes the retirement plan's funded status:

(1) Actuarial Present Value of Accrued Benefits (accumulated benefit obligation)	
(a) Retirees	\$451,843,393
(b) Other vested benefits	242,954,265
(c) Non-vested accrued benefits	<u>51,086,776</u>
(d) Total	745,884,434
(2) Actuarial Present Value of Accrued Benefits Recognizing Future Salary Increases (projected benefit obligation)	
(a) Retirees	451,843,393
(b) Other participants	<u>426,985,608</u>
(c) Total	878,829,001
(3) Assets	
(a) Market value as of 1/1/2005	747,265,486
(b) Accrued contributions	<u>0</u>
(c) Total	747,265,486
(4) Funded Status of Plan	
(a) Accumulated benefit obligation: (3) + (1)	100%
(b) Projected benefit obligation: (3) + (2)	85%

Minimum Balance Sheet Liability

FAS No. 87 requires an employer to recognize an additional minimum liability on the balance sheet if the projected benefit obligation exceeds the value of plan assets. The change in liability recognition from ABO to PBO is effective for fiscal years ending after December 15, 2006.

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The contribution requirements and other results of the actuarial valuation are based on the participant data described in Section III, the actuarial methods and assumptions shown in Section VI, the principal plan provisions summarized in Section V, and on asset information supplied by HEI.

This report should not be distributed to others outside HEI, its subsidiaries, and its auditors, and should not be relied upon by any other person without prior written consent from Watson Wyatt Worldwide.

In preparing this valuation, we have relied upon information and data provided to us by HEI and other persons or organizations designated by HEI. An audit of the financial and participant data provided was not performed, but we have checked the data for reasonableness as appropriate based on the purpose of the valuation. We have relied on all the information provided, including plan provisions and asset information as complete and accurate.

The valuation summarized in this report involves actuarial calculations that require assumptions about future events. We believe that the assumptions and methods used in this report are reasonable and appropriate for the purposes for which they have been used.

In our opinion, all methods, assumptions and calculations are in accordance with requirements of the Internal Revenue Code and ERISA, and the procedures followed and presentation of results are in conformity with generally accepted actuarial principles and practices. HEI is responsible for the selection of the actuarial cost and asset valuation methods.

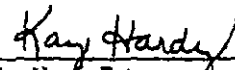
The undersigned consultants of Watson Wyatt Worldwide with actuarial credentials meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between HEI and Watson Wyatt Worldwide that impacts our objectivity.

We would be pleased to review the report with the Pension Investment Committee and other interested members of management and answer any questions you may have.

Prepared by: WATSON WYATT WORLDWIDE



Leonard Smothermon, A.S.A.
Consulting Actuary



Kay Hardy, E.A.
Actuary



A. Requirements and Definitions

Requirements

The actuarial present values of vested and non-vested plan benefits shown in this section can be used for several purposes:

- They give a measure of the funded status of the plan, based on benefits accrued to the valuation date.
- These amounts may be disclosed on the financial statements of a defined benefit plan in accordance with Financial Accounting Standards No. 35.
- These amounts may be disclosed in the financial statements of the plan sponsor in accordance with Financial Accounting Standards No. 87.

Definitions

The values used in this section have been calculated as summarized below:

- The actuarial present value of accrued benefits is equal to the value of the estimated benefits accrued to the valuation date, determined on an on-going plan basis. For this purpose, base rates of pay supplied by the Company were used to determine accrued benefits for employees covered under a collective bargaining agreement. For non-bargaining employees, the current rates of pay were discounted by the assumed salary increases for determining the average salaries over the past 36 months. The actuarial assumptions used in the calculation are summarized in Section VI.C. and VI.D.
- The actuarial present value of vested benefits includes that portion of the total value in which the participant retains a right as of the valuation date, if, for example, he terminates service on that date.
- The actuarial present value of non-vested benefits is the portion of the total value remaining after subtracting out those benefits which are vested.

Because these values are determined on an on-going plan basis, they would differ from those values which would be determined for a plan termination.

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B. Actuarial Present Value of Accrued Benefits

Comparison with Prior Year

	<u>2005</u>	<u>2006</u>
(1) Actuarial Present Value of Vested Benefits		
(a) Retirees and Survivors	\$ 421,998,265	\$ 451,843,393
(b) Other Plan Participants	<u>223,825,965</u>	<u>242,954,265</u>
(c) Total	645,824,230	694,797,658
(2) Actuarial Present Value of Non-Vested Benefits	46,555,606	51,086,776
(3) Total Actuarial Present Value of Accrued Benefits: (1) + (2)	692,379,836	745,884,434
(4) Market Value of Assets		
(a) As of January 1	728,154,539	747,265,486
(b) Accrued Contributions	<u>0</u>	<u>0</u>
(c) Total	728,154,539	747,265,486
(5) Funded Ratio of Vested Benefits: (4) + (1)	113%	108%
(6) Funded Ratio of Total Accrued Benefits: (4) + (3)	105%	100%
(7) Interest Rate Used in Determining Actuarial Present Values	6.00%	5.75%

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Breakdown by Participating Employer

	HELCO
(1) Actuarial Present Value of Vested Benefits	
(a) Retirees and Survivors	\$60,555,261
(b) Other Plan Participants	37,560,565
(c) Total	98,115,826
(2) Actuarial Present Value of Non-Vested Benefits	6,495,863
(3) Total Actuarial Present Value of Accrued Benefits: (1) + (2)	104,611,689
(4) Market Value of Assets	
(a) As of 11/2006	105,513,224
(b) Accrued Contributions	0
(c) Total	105,513,224
(5) Funded Ratio of Vested Benefits: (4) + (1)	108%
(6) Funded Ratio of Total Accrued Benefits: (4) + (3)	101%

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C. Statement of Changes in Accrued Benefits

	HELCO
(1) Actuarial Present Value of Accrued Benefits as of 1/1/2005	\$96,623,866
(2) Increase (Decrease) during 2005 Attributable to	
(a) Plan Amendment	0
(b) Change in Actuarial Assumptions	3,093,798
(c) Benefits Accumulated	4,454,546
(d) Increase for Interest Due to the Decrease in the Discount Period ¹	5,641,375
(e) Benefits Paid	(5,201,896)
(f) Net Increase	7,987,823
(3) Actuarial Present Value of Accrued Benefits as of 1/1/2006: (1) + (2)	104,611,689

¹ Interest on item (1) for one full year, adjusted for interest on item (2)(c).

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A. Source and Testing of Data

Active Participants

Hawaiian Electric Company, Inc. supplied computer files containing information on all active plan participants. The data included names, sex codes, dates of birth and hire, and monthly rates of base pay on January 1, 2006.

Inactive Participants

Hawaiian Electric Company, Inc. supplied computer files containing information on all inactive plan participants. The data for vested terminated former employees included names, sex codes, dates of birth and termination, and monthly accrued benefits. The data for retirees included names, sex codes, dates of birth, retirement dates, status changes, original monthly payment amounts, and COLA amounts.

Review Process

The data was checked for reasonableness and internal consistency and was accepted as reasonable by the actuary. All employees who were participants in the plan on the valuation date were included in the valuation.

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B. Comparison with Prior Year

	<u>Valuation Date</u>	
	<u>1/1/2005</u>	<u>1/1/2006</u>
Basic Data		
(1) Number of Covered Participants		
(a) Active Employees	1,987	2,064
(b) Retirees ¹	1,282	1,316
(c) Survivors in Pay Status	152	161
(d) QDRO Alternate Payees	30	36
(e) Prudential Retirees	7	7
(f) Vested Former Employees	268	273
(g) Transferred Employees	5	5
(h) Disabled Employees on LTD	9	10
(i) Total	3,740	3,872
(2) Approximate Covered Annual Payroll	\$131,950,104	\$140,047,127
(3) Total Annual Benefits of Inactive Participants		
(a) Retirees and Survivors ¹	43,907,318	46,310,684
(b) Vested Former Employees	2,166,901	2,498,041
(c) Transferred Employees	160,539	165,787
(d) Disabled	139,838	163,993
Participant Averages		
(4) Averages for Active Employees		
(a) Years of Past Service	14.02	13.53
(b) Attained Age	45.32	45.15
(c) Retirement Age	59.26	59.25
(d) Covered Annual Pay	\$ 66,407	\$ 67,832
(e) Accrued Annual Benefit	17,476	17,336
(f) Projected Annual Benefit at Age 65	96,707	99,632
(5) Retiree Averages ²		
(a) Retirement Age	58.04	58.04
(b) Attained Age	68.23	68.47
(c) Annual Benefit	\$ 29,116	\$ 33,487
Vested Status		
(6) Vested Status of Active Employees		
(a) Number Fully Vested	1,536	1,547
(b) Number Partially Vested	0	0
(c) Number Not Vested	451	517
(d) Total	1,987	2,064

¹ Excluding Prudential retirees.

² Excluding survivors, alternate payees, and Prudential retirees.

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C. Basic Data by Participating Company

HELCO

Basic Data

(1) Number of Covered Employees

(a) Active Employees	306
(b) Retirees ¹	172
(c) Survivors	16
(d) QDRO Alternate Payees	7
(e) Prudential Retirees	0
(f) Vested Former Employees	28
(g) Transferred Employees	0
(h) Disabled on LTD	1
(i) Total	530

(2) Approximate Covered Annual Payroll for Active Participants on Valuation Date

\$19,700,976

(3) Annual Benefits of Inactive Participants

(a) Retirees and Survivors ¹	5,886,613
(b) Vested Former Employees	263,014
(c) Transferred Employees	0
(d) Disabled	21,142

¹ Excluding Prudential retirees.

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HELCO

Employee Averages

(4) Averages for Active Employees

(a) Years of Past Service	14.06
(b) Attained Age	45.68
(c) Retirement Age	59.29
(d) Covered Annual Pay	\$64,382
(e) Accrued Annual Benefit	17,234
(f) Annual Benefit at Age 65	93,497
(g) Annual Benefit at Age 65 without Maximum Limit	93,497

(5) Retiree Averages¹

(a) Retirement Age	57.54
(b) Attained Age	65.40
(c) Annual Benefit	\$32,369

Vested Status

(6) Vested Status of Employees as of 1/1/2005

(a) Number Fully Vested	226
(b) Number Not Vested	<u>80</u>
(c) Total	306

¹Excluding survivors, alternate payees, and Prudential retirees.

D. Benefit Projections

Set forth below is an exhibit showing for active employees within each employer group the projected amounts of annual benefits commencing at normal retirement age during each of the next five years. These projections are estimates, taking into account the assumed pay increases, and further assume that these participants will remain in service until normal retirement date.

	Year	Number Attaining Age 65	Annual Benefits First Commencing In Year
HELCO	2006	1	8,605
	2007	0	0
	2008	0	0
	2009	0	0
	2010	3	149,308

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HELCO

Age Last Birthday	Completed Years of Past Vesting Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30& Over	
Under 20 M								0
F								0
20-24 M	5							5
F								0
25-29 M	6							6
F	6							6
30-34 M	4	4	3					11
F	5	3	1					9
35-39 M	10	2	19	1				32
F	5	3	4	1				13
40-44 M	8	6	14	8	4			40
F	1	2	9	1				13
45-49 M	12	1	8	6	6	6		39
F	2		6	4	1	1		14
50-54 M	6	3	5	17	8	4	11	54
F	3		6	3	2	2	3	19
55-59 M	7	1		1	7	4	16	36
F					3		2	5
60-64 M				1	2			3
F								0
65&over M		1						1
F								0
Total M	58	18	49	34	27	14	27	227
F	22	8	26	9	6	3	5	79

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HELCO

	Active Employees	Retirees	Vested Term	Transfers Out of Plan	LTD
(1) Participants on 1/1/2005	296	187	31	0	0
(2) Withdrawals					
(a) Non-Vested Term	0	0	0	0	0
(b) Vested Term	0	0	0	0	0
(c) Cash Outs	0	0	0	0	0
(d) Transfers Within Plan	0	0	0	0	0
(e) Retirements - Regular	(13)	13	0	0	0
(f) Retirement - QDROs	0	0	0	0	0
(g) Deaths - No Benefits	(4)	(7)	(1)	0	0
(h) Deaths - Survivor Benefits	0	(1)	(1)	0	0
(i) LTD	0	0	(1)	0	1
(j) Transfer Out of Plan	0	0	0	0	0
(k) Survivors	0	2	0	0	0
(l) QDRO Alternate Payees	0	1	0	0	0
(m) Data Adjustments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
(n) Totals	(17)	8	(3)	0	1
(3) Entrants					
(a) New Entrants	23	0	0	0	0
(b) Transfers Within Plan	4	0	0	0	0
(c) Rehires>Returns	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
(d) Totals	27	0	0	0	0
(4) Participants on 1/1/2006	306	195	28	0	1

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G. Distribution of Inactive Vested Participants

Retired Participants¹

Age Group

Age Group	HELCO	
	M	F
Up to 40	1	1
40-44	0	0
45-49	0	3
50-54	4	3
55-59	30	12
60-64	52	10
65-69	21	6
70-74	16	5
75-79	10	5
80-84	10	2
85-89	1	2
90 & up	1	0
Totals	146	49

Benefit Distribution

HELCO

Up to 40	5	19,321
40-44		0
45-49		19,841
50-54		135,631
55-59		1,449,534
60-64		2,078,922
65-69		888,889
70-74		550,325
75-79		398,812
80-84		302,595
85-89		31,210
90 & up		11,532
Totals		\$5,886,612

¹ Excluding Prudential retirees.

Terminated Vested ParticipantsAge Distribution

<u>Age Group</u>	<u>HELCO</u>	
	<u>M</u>	<u>F</u>
Up to 40	3	0
40-44	3	3
45-49	4	3
50-54	4	3
55-59	5	0
60-64	0	0
65 & Over	0	0
Totals	19	9

Benefit Distribution

<u>Age Group</u>	<u>HELCO</u>
	<u>\$</u>
Up to 40	22,093
40-44	37,636
45-49	60,627
50-54	76,594
55-59	66,067
60-64	0
65 & Over	0
Totals	263,017

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Transferred Employees

Age Distribution

	HELCO	F
M	0	0
30-34	0	0
35-39	0	0
40-44	0	0
45-49	0	0
50-54	0	0
55-59	0	0
Totals	0	0

Age Group

30-34
35-39
40-44
45-49
50-54
55-59
Totals

Benefit Distribution

	HELCO
\$	0
30-34	0
35-39	0
40-44	0
45-49	0
50-54	0
55-59	0
Totals	\$ 0

Age Group

30-34
35-39
40-44
45-49
50-54
55-59
Totals

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A. Asset Reconciliation

HELCO

(1)	Market Value on 1/1/2005	\$102,496,113
(2)	Income	
	(a) Contributions	500,000
	(b) Interest, Dividends and Other Income	<u>2,052,471</u>
	(c) Total	2,552,471
(3)	Disbursements	
	(a) Benefit Payments	(5,201,896)
	(b) Investment Management/Trust Fees	(397,171)
	(c) Administrative Expenses	<u>(48,698)</u>
	(d) Total	(5,647,765)
(4)	IVF Expense	0
(5)	Transfers	381,278
(6)	Market Appreciation	5,731,163
(7)	Adjustments	(36)
(8)	Market Value on 1/1/2006	105,513,224

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B. Actuarial Valuation Value of Assets

A separate asset value (called "actuarial valuation value") is developed for purposes of determining the plan contributions. Under Internal Revenue Service regulations, the method must recognize market value and must fall within a 20% corridor around market value. The actuarial valuation value typically differs from market value in order to avoid fluctuations in plan contributions resulting from wide fluctuations in current market value.

The method used to value assets recognizes net gains or losses over a five-year period beginning with plan year 2004: 20% in each of the next five years. The gain or loss for a given year is the difference between the actual market value at the end of the year and the expected market value at the end of the year (based on the beginning of year market value accumulated with an 8.5% return).

Gain or Loss for 2005

(1) Market Value on 12/31/2004	\$ 728,154,539
(2) Contributions	7,500,000
(3) Benefit Payments	(40,308,615)
(4) Administrative Expenses	(351,506)
(5) Expected Income at 8.5%	60,169,165
(6) Expected Market Value on 12/31/2005: (1) + (2) + (3) + (4) + (5)	755,163,583
(7) Actual Market Value on 12/31/2005	747,265,486
(8) Gain/(Loss) for Year: (7) - (6)	(7,898,097)

Unrecognized Portion of Gains and Losses

<u>Year Ended</u> <u>December 31</u> (a)	<u>Gain/(Loss)</u> (b)	<u>Percent</u> <u>Recognized</u> (c)	<u>Percent</u> <u>Unrecognized</u> (d)	<u>Unrecognized</u> <u>Gain/(Loss)</u> (b) x (d)
2001	\$ N/A	100%	0%	\$ N/A
2002	N/A	80	20	N/A
2003	N/A	60	40	N/A
2004	10,782,701	40	60	6,469,621
2005	(7,898,097)	20	80	(6,318,478)
Total				151,143

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Valuation Assets

	HELCO
(1) Market Value on 12/31/2005	\$105,513,224
(2) Unrecognized Gain/(Loss)	21,341
(3) Adjusted Assets: (1) - (2)	105,491,883
(4) Accrued Contributions	0
(5) Total Adjusted Assets: (3) + (4)	105,491,883
(6) Corridor Test:	
• Minimum: $.80 \times [(1) + (4)]$	84,410,579
• Maximum: $1.20 \times [(1) + (4)]$	126,615,869
(7) Valuation Assets: (5) as adjusted by (6)	105,491,883

C. Investment Experience

The annual rates of return during each of the last 32 years are shown below for market value and the value used to determine the plan contributions (actuarial valuation value). Rates prior to 1985 were determined by the plan's prior actuary. In the calculation of the rates since 1985, the plan's expenses paid directly from the assets were treated as investment losses and are included in the calculation of the net rates. Returns for 1998 and later years are net of investment expenses only (i.e., not administrative expenses). Also shown are the compound rates averaged over various periods.

Plan Year End	Investment Return		Plan Year End	Investment Return	
	Market Value	Actuarial Value		Market Value	Actuarial Value
12/31/2005	7.38%	8.68%	12/31/1985	23.65%	13.77%
12/31/2004	10.13	8.67	12/31/1984	5.06	5.87
12/31/2003	23.30	2.29 ¹	12/31/1983	14.32	15.06
12/31/2002	(13.90)	(14.69)	12/31/1982	20.27	10.60
12/31/2001	(10.26)	13.45	12/31/1981	8.10	11.63
12/31/2000	(3.32)	15.03	12/31/1980	13.61	12.31
12/31/1999	30.10	25.19	12/31/1979	11.91	6.97
12/31/1998	16.38	15.03	12/31/1978	6.47	6.75
12/31/1997	15.23	13.49	12/31/1977	3.42	5.12
12/31/1996	13.92	11.27	12/31/1976	9.18	(1.54)
12/31/1995	26.47	8.96	12/31/1975	14.69	4.83
12/31/1994	(2.77)	11.27	12/31/1974	(7.47)	4.74
12/31/1993	16.16	11.62			
12/31/1992	4.20	23.51 ²			
12/31/1991	25.93	13.48			
12/31/1990	(1.67)	0.78			
12/31/1989	22.00	9.35			
12/31/1988	6.89	0.58			
12/31/1987	0.55	13.15			
12/31/1986	13.78	19.44			

		Market Value	Actuarial Value
Latest:	5-year average	2.41 %	3.18%
	10-year average	8.03	9.36
	15-year average	9.79	10.77
	All years average	9.57	9.32

¹ Includes a loss of 19.84% due to change in asset method. The "return" was 22.13% under the prior method.

² Includes a gain of 16.26% due to change in asset method. The "return" was 7.25% under the prior method.

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A. History of Plan

The Retirement Plan for Employees of Hawaiian Electric Company, Inc., Not Represented by Collective Bargaining Agreements and the Retirement Plan for Employees of Hawaiian Electric Company, Inc., Represented by Collective Bargaining Agreements were adopted by Hawaiian Electric Company, Inc. effective January 1, 1941. Benefits under the plans were funded through Prudential Group Annuity Contract No. GA-199. Effective January 1, 1947, Hilo Electric Light Company, Ltd. established a retirement plan for its employees. Benefits under that plan were funded through Prudential Group Insurance Contract No. GA-219. Maui Electric Company, Ltd. adopted a retirement plan for its employees on August 1, 1954. Benefits under that plan were funded through John Hancock Group Annuity Contract No. 367 GAC.

Effective December 28, 1967, Maui Electric Company, Ltd. entered into an agreement with First Hawaiian Bank to administer the trust as part of the Maui Electric Company, Ltd. Pension Plan. As of December 1, 1971, the separate non-bargaining and bargaining unit retirement plans of Hawaiian Electric Company, Inc. were merged and coverage was extended to include employees of Hilo Electric Light Company, Inc. and Maui Electric Company, Inc. The name of the merged plan was amended effective July 1, 1983 and was thereafter called the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries.

The plan was restated effective January 1, 1989 to include, among other changes, a five-year vesting schedule. Molokai Electric Company, Ltd. Pension Plan was merged into the plan effective December 31, 1989.

The plan was again restated effective January 1, 1994 to reflect various prior amendments made to the plan and certain amendments required by changes in the laws regulating the plan.

The plan was amended effective January 1, 1999 to provide a partial lump sum optional form of distribution and to extend death benefits to single employees. A summary of the principal provisions of the plan is included in the next section.

The plan was again restated effective January 1, 1998 to reflect amendments required by changes in the laws regulating the plan.

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B. Summary of Principal Plan Provisions

- (1) **Effective Date** January 1, 1941. Latest amendment negotiated August 15, 1998. Latest amendment adopted December 5, 2005.
- (2) **Eligibility:** Employees of Hawaiian Electric Industries, Inc. and the controlled group to which participation is extended shall participate upon commencement of employment (regular employment for union employees).
- (3) **Compensation:** Base pay including salary reduction contributions to the 401(k) plan, Section 125 plan, and Section 132(f) plan, but not including overtime or premium pay, bonuses or contributions to any other plan. Compensation shall be limited to the level prescribed in Section 401(a)(17) of the Internal Revenue Code.
- (4) **Final Average Compensation:** The average monthly full-time rate of Compensation paid to an employee during the 36-consecutive months of his last ten years of employment, which produce the highest such average.
- For part-time employees, monthly pays are multiplied by a "full-time equivalent" ratio.
- (5) **Vesting Service:** The elapsed period of service from hire to termination. For participants who sever employment and are reemployed within a twelve-month period, Vesting Service will also include such period of severance.
- (6) **Credited Service:** The elapsed period of service from participation to termination. Union employees receive Credited Service for the initial probationary period once they become participants. Active Participants that retire or die on or after age 55 will receive additional Credited Service for any sick leave not used in the last 3 years of Vesting Service, up to a maximum of 12 weeks for each such year of Vesting Service.
- Participants incurring a long-term disability shall be granted Credited Service for the period of such disability prior to the commencement of the distribution of accrued benefits.

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(7) Normal Retirement:

(a) Eligibility Date

First day of the month in which the participant attains age 65 if born on the 1st through 15th of the month.
First day of the next following month if the participant was born after the 15th. The day following the last day of employment (after attaining age 65) with 30 days advance written notice from the participant.

(b) Monthly Benefit

(i) Participants represented by IBEW Unit 8

The lesser of (A) 1.83% times the participant's final rate of pay (converted to a monthly rate) times Credited Service or (B) 60% of such final rate of pay.

(ii) Participants not represented by IBEW Unit 8

The lesser of (A) 2.04% times Final Average Compensation times Credited Service or (B) 67% of Final Average Compensation.

(8) Early Retirement:

(a) Eligibility Date

First day of the month not more than 10 years prior to a participant's normal retirement date with at least 5 years of Vesting Service or after attainment of age 50 with at least 5 years of Vesting Service and 65 points (i.e., age plus Vesting Service is at least 65).

(b) Monthly Benefit

The benefit calculated as in (7)(b) above, reduced to reflect earlier commencement in accordance with the following schedule (interpolated to the nearest month):

Age	Percentage Payable
60+	100%
59	99
58	98
57	97
56	96
55	95
54	90
53	85
52	80
51	75
50	70

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In determining the applicable percentage, a participant's actual age shall be increased by one full year for each full year of Vesting Service in excess of 33 years.

(9) Postponed Retirement:

If a participant remains in service after his normal retirement date, his retirement benefit will be calculated as of such late retirement date and shall begin on the first day of the month following his last day of employment. However, with 30 days advance written notice from the participant, benefits shall begin on the day following the last day of employment.

(10) Vesting:

If a participant terminates service prior to meeting the eligibility requirements for early retirement, he will receive a percentage of his normal retirement benefit, calculated as in (7)(b) above, depending on his Vesting Service in accordance with the following schedule:

<u>Years of Vesting Service</u>	<u>Percentage</u>
Less than 5	0%
5 and over	100

Benefits may commence upon satisfaction of the Early Retirement eligibility requirements in (8)(a) above. Benefits commencing prior to normal retirement date shall be actuarially reduced.

(11) Death Benefit for Vested Participants:

(a) Eligibility

Death of a participant with vested benefits, with death occurring prior to the commencement of benefits.

(b) Monthly Benefit

The beneficiary will receive a lifetime pension commencing on the date the participant would have been first eligible to retire, equal to the amount to which the beneficiary would have been entitled had the participant (A) terminated employment on the day of death, (in the case of an employee who dies while actively employed), (B) survived to his earliest retirement age, (C) retired on such earliest retirement date with a 50% joint and survivor annuity, (D) and then died.

For single participants that die prior to earliest retirement age, the designated beneficiary will receive a lump sum payment.



(12) Adjustment to Retirement
Income:

- (i) For retirements or deaths following 10/31/1979
and prior to 11/1/1981

Pensions are increased by 2.5% of the amount payable to a retiree or a surviving spouse or contingent annuitant of a retiree or active participant, calculated as of the date of retirement, for each 2-year period following the participant's date of retirement.

- (ii) For retirement or deaths on or after 11/1/1981

The same as (i) above except that the percentage shall be 3% instead of 2.5%.

(13) Form of Benefit:

- (a) Normal

Reduced 50% joint and survivor annuity if married.
Single life annuity if single.

- (b) Optional

Full or partial lump sum payout option up to \$50,000.
33-1/3%, 50%, 66-2/3% or 100% contingent annuitant options, single life annuity option and the social security adjustment option. Options are actuarially equivalent to a single-life annuity.

W

A. Actuarial Cost Method

The actuarial cost method used in valuing a defined benefit plan provides for the funding or expensing of retirement plan costs on an orderly basis. It is the actuarial cost method which assigns the costs of the plan to the years of an employee's service during which benefits are to be funded.

The projected unit credit actuarial cost method was used in the valuation. Under this method, the contributions are the sum of (1) an amortization of the unfunded actuarial present value of benefits attributable to past service (the unfunded actuarial accrued liability) and (2) the actuarial present value of benefits attributable to the current year's service (the normal cost).

A participant's benefit attributable to past service is equal to his accrued benefit adjusted to take into account future salary increases, in accordance with the actuarial assumptions. His current service benefit is one year's increment of the projected benefit, again adjusted for future salary increases.

The actuarial assumptions determine the size of the present values described above. The actuarial assumptions used in the valuation are summarized in Section VI.C.

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B. Asset Valuation Method

The asset valuation method determines the value of assets recognized at any valuation date for purposes of determining the range of contributions to the plan. Generally, asset valuation methods tend to smooth wide market fluctuations and, therefore, recognize the growth of assets on a more orderly basis. Under Internal Revenue Service regulation 1.412(c)(2)-1, the asset valuation method must be applied on a consistent basis year to year and must reflect the fair market value of plan assets. Further, the asset valuation method must produce assets which fall within a 20% corridor of the market value of plan assets as of the plan's valuation date.

The asset valuation method recognizes the difference between the actual market value of assets and the expected market value of assets as of the valuation date over a five-year period; 20% in each of the next five years.

This method was adopted effective January 1, 2004.

W

C. Actuarial Assumptions for Funding

The actuarial assumptions determine the value of benefits expected to be paid under the plan. The assumptions take into account probabilities for determining how many and at what time employees will become eligible for benefits, the size of the benefits expected to be paid under the plan, how long benefits will be paid, and the current value of future benefits.

The actuarial assumptions used in the current valuation are the same as those used last year, except for the current liability interest rates. These assumptions are shown below:

- (1) Mortality: The 1983 Group Annuity Mortality Table male and female rates.
- (2) Interest Rate: 8.5% per year net of investment expenses.
- (3) Salary Increases: The following schedule shows representative rates at selected ages.

Age	Rates
20	17.29%
25	13.17
30	10.24
35	8.15
40	6.67
45	5.61
50	4.86
55	4.32
60	3.94
65	3.67

- (4) Withdrawal: The following schedule shows representative rates at selected ages.

Age	Rates	
	Males	Females
20	7.4%	6.2%
25	4.9	3.7
30	3.4	2.5
35	2.4	1.7
40	1.3	1.2
45	0.7	0.7
50	0.0	0.3
55 and over	0.0	0.0

W

(5) Retirement Age:

The assumed rates of retirement are shown below:

Age	Rate
Below 50	0%
50	2
51	2
52	2
53	2
54	4
55	15
56	15
57	15
58	15
59	15
60	15
61	15
62	30
63	25
64	30
65	50
66	50
67	50
68 and over	100

(6) Maximum Benefits:

It is assumed that the maximum benefit and pay limits currently in effect will not increase.

(7) Pre-Retirement Death Benefit:

100% of participants are assumed to have beneficiaries of the opposite sex, with females three years younger than males.

(8) Expenses:

\$380,000

(9) Former Employees:

It is assumed that former employees who are not actively employed on the valuation date will not be rehired.

(10) Lump Sum Option:

It is assumed that 20% of retiring participants will elect the maximum allowable lump sum payment.

Mortality table: as required under pension law for lump sum distributions.

(11) Current Liability
Interest Rates:

Minimum Funding: 5.19%
Maximum Deduction: 5.19%

W

D. Actuarial Assumptions for Determining Accrued Benefits

The actuarial assumptions used in determining the actuarial present value of accrued benefits in Section II of the report are identical with those described in Section VI.C. above except that (1) no future pay increases have been taken into account, and (2) an interest rate of 5.75% instead of 8.5% was used. The 5.75% interest rate is the discount rate used to value liabilities for financial disclosure under FAS No. 87. A retroactive salary increase assumption was applied to current earnings of non-bargaining employees to determine the average 36 months' earnings prior to the valuation date for purposes of estimating accrued benefits.

W

A. Derivation of Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability represents that portion of the value of all future benefits which is assigned to prior years by the actuarial cost method and which is in excess of the actuarial valuation value of assets. The exhibit below shows the determination of the unfunded actuarial accrued liability as of January 1, 2006.

NELCO

(1) Actuarial Accrued Liability

(a) Actives	
(i) Retirement	\$37,467,135
(ii) Vesting	124,134
(iii) Pre-Retirement Death	973,203
(b) Retirees	48,328,130
(c) Vested Terminations	474,361
(d) Prudential Liabilities	0
(e) Long Term Disability	133,271
(f) Transfers Out of Plan	<u>0</u>
(g) Total	87,500,234

(2) Valuation Assets

105,491,883

(3) Unfunded Actuarial Accrued Liability:

(1) - (2)
(17,991,649)

W

B. Derivation of Normal Cost

The portion of the value of future benefits assigned to the current year's service is called the normal cost. Under the cost method used to value the plan, the normal cost is equal to the actuarial present value of benefits accruing during the current plan year, adjusted to reflect future salary increases. The normal cost as of January 1, 2006 is shown below:

<u>Normal Cost</u>		<u>HELCO</u>
(a)	Active Employees	
	▪ Retirement	\$1,895,989
	▪ Vesting	13,056
	▪ Pre-Retirement Death	52,485
(b)	Disabled Employees	<u>6,632</u>
(c)	Subtotal	1,968,169
(d)	Administrative Expenses	<u>50,000</u>
(e)	Total	2,018,169

W

C. Determination of the Actuarial Gain or Loss

The plan experience expected to occur as a result of the various actuarial assumptions used in the valuation rarely, if ever, matches the actual plan experience. In most plans, the size of the participant group is too small for the various probabilities used in the actuarial assumptions to provide meaningful results.

The actuarial gain or loss is a measure of the deviation of expected liabilities (determined as if all actuarial assumptions were exactly realized) from those liabilities resulting from actual plan experience.

Under the projected unit credit cost method, the actuarial gain (loss if negative) is determined as the difference between:

- (a) The expected unfunded actuarial accrued liability projected from the prior year's valuation (adjusted for any plan changes or changes in actuarial assumptions), and
- (b) The actual unfunded actuarial accrued liability as of the valuation date.

If the actual unfunded liability is greater than the amount expected, the plan has experienced an actuarial loss. If the actual amount is lower, the plan has experienced an actuarial gain.

The first column shows the calculation of the true actual gain or loss for the year. The second column shows the gain or loss calculated according to IRS rules for the minimum contribution funding standard account (FSA). The second column is different from the first column whenever the actual unfunded actuarial accrued liability is negative.

The calculation of the actuarial loss occurring during the last plan year is shown below:

	Actual	IRS Rules For FSA
(1) Unfunded Actuarial Accrued Liability as of 1/1/2005	\$ (116,799,560)	\$ N/A
(2) 2005 Normal Cost	13,781,868	N/A
(3) (1) + (2) with Interest to 1/1/2006: [(1) + (2)] x 1.085	(111,774,196)	N/A
(4) 2005 Contribution	7,500,000	N/A

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	Actual	IRS Rules For FSA
(5) Interest on (4) to 1/1/2006	\$ 4,085	\$ N/A
(6) Plan Changes	591,399	N/A
(7) Assumption Changes	0	N/A
(8) Method Changes	0	N/A
(9) Expected Unfunded Actuarial Accrued Liability at 1/1/2006: (3) - (4) - (5) + (6) + (7) + (8)	(118,686,882)	(67,420,198)
(10) Actual Unfunded Actuarial Accrued Liability at 1/1/2006:	(118,118,648)	0
(11) Gain (Loss): (9) - (10)	(568,234)	(67,420,198)

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D. Calculation of the Full Funding Limitation

Traditional Full Funding Limitation

When the plan's assets grow to a certain level, as compared to the plan's liabilities, the minimum required and maximum deductible contribution to a defined benefit are limited. This limit, the full funding limitation, is described in Sections 412(c)(6) and (7) of the Internal Revenue Code and appears at periodic points over a plan's history. It usually occurs as a result of favorable investment or other favorable plan experience or as a result of reducing the actuarial accrued liability through changes in actuarial cost methods or assumptions.

The full funding limitation is equal to the excess of the actuarial accrued liability and normal cost over the lesser of market value or actuarial valuation of assets. The asset value is offset by the funding standard account credit balance in determining the full funding limitation for the minimum required contribution. Both the minimum required and maximum deductible contributions are restricted to the full funding limitation.

When the contributions are restricted by the full funding limitation, the actuarial accrued liability and all existing amortization bases are considered to be fully funded.

The full funding limitation for the minimum required and maximum deductible contributions is determined as follows:

	Minimum Required Contribution	Maximum Deductible Contribution
(1) Actuarial Accrued Liability	\$ 628,995,695	\$ 628,995,695
(2) Normal Cost	14,522,776	14,522,776
(3) Asset Value:		
(a) Market Value	747,265,486	747,265,486
(b) Valuation Value	747,114,343	747,114,343
(c) Funding Standard Account Credit Balance	<u>67,420,198</u>	<u>N/A</u>
(d) Net Value: lesser of (a) or (b) offset by (c)	679,694,145	747,114,343
(4) Full Funding Limitation at 1/1/2006: (1) + (2) - (3), (not less than 0)	0	0
(5) Full Funding Limitation at 12/31/2006: 1.085 x (4)	0	0

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RPA '94 Full Funding Limitation Threshold

The Retirement Protection Act of 1994 added another full funding limitation threshold. The full funding limitation will not be less than the excess of 90% of "current liability" over the actuarial value of assets.

The interest rate used in calculating the current liability minimum full funding threshold (in accordance with the extended provisions of the Pension Funding Equity Act of 2004) must fall within a 90% - 100% corridor around the corporate bond weighted average interest rate for the four-year period ending December 31, 2003. A 5.19% interest rate was used for calculating current liability, which falls within the acceptable range of 5.19% to 5.77% for plan years beginning on January 1, 2006. As required, the mortality table used in the calculations is the 1983 Group Annuity Mortality Table (separate rates for males and females).

The full funding limitation is described in Section 412(c)(7) of the Internal Revenue Code. The asset value used for this calculation is the actuarial value of plan assets without the funding standard account credit balance offset.

The RPA '94 full funding limitation threshold had no impact on the 2006 plan year contribution.

(1)	Current Liability at 1/1/2006	
	(a) Actives - Vested Benefits	\$ 252,065,373
	(b) Actives - Non-Vested Benefits	53,814,366
	(c) Retirees and Survivors	474,312,545
	(d) Vested Terminated Participants	<u>8,734,892</u>
	(e) Total	788,927,176
(2)	2006 Accrual	31,320,332
(3)	Expected 2006 Distributions	43,766,805
(4)	Expected Expenses	380,000
(5)	Expected Current Liability at 12/31/2006 $1.0519 \times [(1) + (2) - (4)] - 1.02595 \times (3)$	817,516,077
(6)	90% of Current Liability Discounted to 1/1/2006: $.90 \times (5) + 1.085$	678,123,935
(7)	Actuarial Value of Assets (not reduced by credit balance)	747,114,343

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(8)	Asset Value at 12/31/2006 (not including contribution): $1.085 \times [(7) - (4)] - 1.0425 \times (3)$	\$ 764,579,868
(9)	Asset Value Discounted to 1/1/2006 (8) \div 1.085	704,681,906
(10)	Full Funding Limitation Threshold: (6) - (9) (not less than zero)	0
(11)	Full Funding Limitation Threshold: at 12/31/2006: (10) \times 1.085	0

150% Current Liability Deduction

The Pension Protection Act of 2006 increased the maximum deductible contribution allowance from 100% to 150% of current liability less assets for plan years beginning in 2006 and 2007.

The interest rate used in calculating current liability for this purpose is the same as the interest rate used to calculate the RPA '94 full funding limitation current liability. As required, the mortality table used in the calculation is the 1983 Group Annuity Mortality Table (separate rates for males and females).

The maximum deductible contribution is equal to the amount necessary to fund 150% of the current liability projected to the end of year. This amount is \$461,694,248, calculated as shown below:

(12)	150% Current Liability at 12/31/2006:	\$ 1,226,274,116
(13)	Valuation Value of Assets at 12/31/2006: (item (8) above)	764,579,868
(14)	150% Current Liability Deductible Contribution: (12) - (13) (not less than zero)	461,694,248

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E. Calculation of the Deficit Reduction Contribution

The Retirement Protection Act of 1994 (RPA '94) requires a potential additional deficit reduction contribution if the current liability (using the highest rate allowable for the plan year) is less than 90% funded. In accordance with the extended provisions of the Pension Funding Equity Act of 2004, a 5.77% interest rate was used in calculating current liability for purposes of this DRC gateway test. As required, the mortality table used in the calculation is the 1983 Group Annuity Mortality Table (separate rates for males and females).

The plan is exempt from this additional contribution because the current liability (using the highest rate allowable for the plan year) is at least 90% funded, as shown below:

(1)	Current Liability at 1/1/2006	
	(a) Actives - Vested Benefits	\$ 229,108,883
	(b) Actives - Non-Vested Benefits	48,900,506
	(c) Retirees and Survivors	451,196,625
	(d) Vested Terminated Participants	<u>7,634,357</u>
	(e) Total	736,840,371
(2)	Valuation Value of Assets at 1/1/2006 (not reduced by credit balance)	747,114,343
(3)	Funded Ratio: (2) ÷ (1)	101.39%



F. Amortization Schedule

The actuarial accrued liability is required to be amortized over varying periods as shown in Column (2) to determine the minimum required contribution and over a 10-year period to determine the maximum deductible contribution. These amortization payments are shown in Columns (6) and (7) below. The remaining unamortized balance of the actuarial accrued liability is required to be determined on two bases: First as though the minimum contribution had always been made (Column (4)) and also in accordance with actual contributions made (Column (5)). Any contributions in excess of the minimum required are separately accounted for as a credit balance, which may be used to reduce future contributions.

	Initial Amount (1)	Minimum Amortization		Remaining Amount		Amortization Payment	
		Initial Years (2)	Remaining Years (3)	Minimum Balance (4)	Actual Balance (5)	Minimum (6)	Maximum (7)
(1) Amortization Charge Bases							
(a) 1/1/2006 Actuarial Loss	\$ 67,420,198	5	5	\$ 67,420,198	N/A	\$ 15,768,606	N/A
(2) Amortization Credit Bases	None						
Total:							
(3) Net Amounts: (1) + (2)				\$ 67,420,198	\$ 0	\$ 15,768,606	\$ 0
(4) Remaining Minimum Unfunded Balance: Column (4)	\$ 67,420,198						
(5) Remaining Actual Balance: Column (5)	0						
(6) Funding Standard Account Credit Balance: (4) - (5)	\$ 67,420,198						

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G. Funding Standard Account as of December 31, 2005

The funding standard account has been established under the Employee Retirement Income Security Act of 1974 to account for contributions and interest credits in excess of the minimum funding requirements. Any account balance at the end of the year is available to reduce the otherwise calculated minimum contribution for the next plan year. Charges include the normal cost plus the minimum required amortization of the unfunded accrued liability both with interest. In addition to the credit balance at the end of the previous plan year, credits include company contributions with interest and other amortization credits. The calculation of the current funding standard account balance is shown below.

HELCO

(1) Charges to Funding Standard Account

(a) Normal Cost	\$1,889,601
(b) Amortization Charges	2,602,757
(c) Interest	<u>381,850</u>
(d) Total Charges:	4,874,208

(2) Credits to Funding Standard Account

(a) Prior Year's Credit Balance	11,128,341
(b) Company Contributions	500,000
(c) Amortization Credits	0
(d) Interest	946,181
(e) Full Funding Limit Credit	<u>4,874,208</u>
(f) Total Credits	17,448,730

**(3) Balance in Funding Standard Account
at 12/31/2005: (2) - (1)**

12,574,522

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H. Range of Contributions

The range of contributions for the current plan year is shown below. This range includes the maximum amount of contribution allowable as a deduction under Section 404(a)(1) of the Internal Revenue Code and the minimum contribution required under Section 412(b) of the Internal Revenue Code. The maximum deductible contribution includes a full year's interest which may be deducted even though the contribution is paid before the end of the year. The minimum required contribution is shown at both the beginning and end of the plan year. If paid earlier than the end of the year, the minimum contribution would fall between the beginning and year-end values.

HELCO

(1) Maximum Deductible Contribution

(a) Normal Cost	\$2,018,169
(b) Amortization Charges	0
(c) Amortization Credits	0
(d) Total	2,018,169
(e) Full Funding Limitation	0
(f) Lesser of (1d) or (1e)	0
(g) 150% Current Liability Deduction	64,754,055
(h) Maximum Deductible Contribution: Greater of (1f) or (1g)	64,754,055

(2) Minimum Required Contribution

(a) Normal Cost	\$2,018,169
(b) Amortization Charges	2,940,998
(c) Amortization Credits	0
(d) Funding Standard Account Credit Balance	(12,574,522)
(e) Full Funding Limit Credit	(4,959,167)
(f) Net (a) + (b) + (c) + (d) + (e)	(12,574,522)
(g) Total on 1/1/2006 (not less than zero)	0
(h) Total on 12/31/2006: 1.085 x (g)	0

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HEI RETIREMENT PLAN: Data Trends

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	1986	1987	1988	1989	1990	1991	1992	1993
(1) Covered Payroll								
• Total	\$63,588,769	\$69,609,129	\$71,952,647	\$75,644,765	\$82,132,343	\$85,425,731	\$91,544,682	\$102,062,930
• Average	36,714	38,789	39,383	40,508	41,692	43,188	44,160	47,094
(2) Participants								
• Actives	1,732	1,792	1,827	1,868	1,970	1,978	2,073	2,187
• Retirees	800	810	845	869	919	961	979	775
(3) Ratio: Retirees to								
• Actives	.46	.45	.46	.47	.47	.49	.47	.36
(4) Average Benefits								
• Actives (projected to 65)	68,895	70,893	72,405	72,784	74,504	76,779	79,350	84,123
• Retirees ¹	12,118	13,002	13,580	14,342	15,432	16,536	16,343	19,217
(5) Other Averages for Actives								
• Past Service	15.62	15.41	14.87	14.53	14.23	14.26	13.97	13.67
• Age	42.31	42.29	42.06	42.09	42.06	42.20	41.93	41.96
• Retirement Age	60.92	60.94	60.93	60.96	60.96	60.95	60.98	60.97
(6) Other Averages for Retirees ¹								
• Retirement Age					59.21	59.20	59.25	59.04
• Attained Age					68.62	68.79	68.53	68.68
(7) New Retirees ¹								
• Number					62	56	45	42
• Avg. Ret. Age					58.83	58.80	58.79	58.27

¹ Excluding survivors, alternate payees and Prudential retirees.

HEI RETIREMENT PLAN: Data Trends (cont.) 54

	1994	1995	1996	1997	1998	1999	2000	2001
(1) Covered Payroll								
• Total	\$110,480,897	\$115,300,898	\$119,318,849	\$121,204,476	\$121,945,426	\$118,622,803	\$117,777,260	\$117,822,571
• Average	48,354	50,816	52,899	54,547	55,531	56,394	56,508	56,800
(2) Participants								
• Actives	2,275	2,269	2,258	2,222	2,186	2,066	2,013	1,987
• Retirees	813	871	902	985	1,014	1,100	1,146	1,239
(3) Ratio: Retirees to								
• Actives	.36	.38	.40	.43	.46	.53	.57	.63
(4) Average Benefits								
• Actives	88,262	90,505	90,894	78,808	76,144	76,038	76,633	76,318
• (Projected to 65)	19,624	19,856	20,530	21,240	21,596	23,139	23,784	26,725
• Retirees ¹								
(5) Other Averages for								
Actives								
• Past Service	13.26	13.62	13.96	14.24	14.40	14.80	15.15	14.83
• Age	41.76	42.30	42.80	43.21	43.65	44.03	44.51	44.83
• Retirement Age	59.97	58.82	58.94	58.96	58.99	58.88	59.01	59.08
(6) Other Averages for								
Retirees ¹								
• Retirement Age	58.85	58.87	58.79	58.69	58.62	58.52	58.29	58.30
• Attained Age	66.74	67.14	67.38	67.51	67.75	67.80	68.20	67.65
(7) New Retirees ¹								
• Number	49	64	60	64	64	102	64	101
• Avg. Ret. Age	58.50	57.60	58.53	57.96	58.07	57.90	57.66	57.50

¹ Excluding survivors, alternate payees and Prudential retirees.

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HEI RETIREMENT PLAN: Data Trends (cont.)

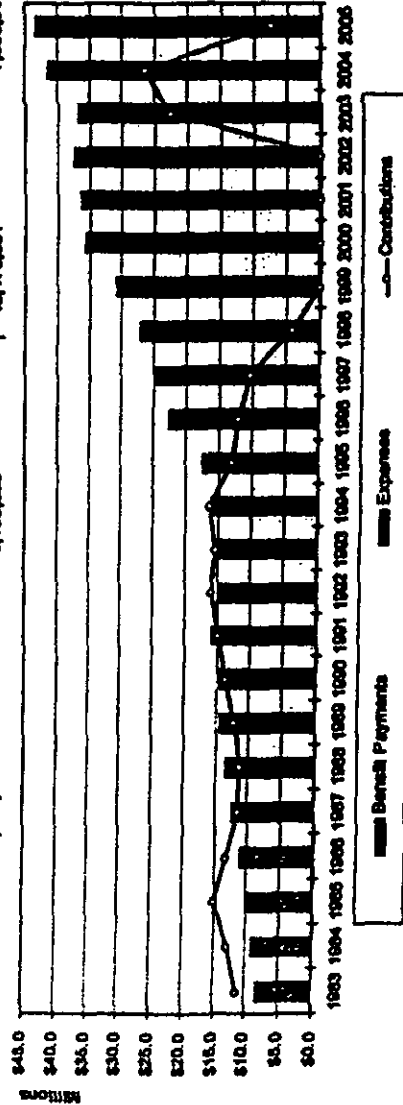
	2002	2003	2004	2005	2006
(1) Covered Payroll					
• Total	\$120,895,309	\$123,191,385	\$124,400,843	\$131,850,104	\$140,047,127
• Average	81,493	83,566	85,787	88,407	91,852
(2) Participants					
• Actives	1,866	1,938	1,891	1,887	2,084
• Retirees	1,316	1,372	1,443	1,471	1,520
(3) Ratio: Retirees to					
• Actives	.67	.71	.76	.74	.74
(4) Average Benefits					
• Actives	83,114	83,269	84,113	86,707	88,832
• Retirees ¹	27,081	27,844	31,763	29,116	33,487
(5) Other Averages for					
Actives					
• Past Service	14.72	14.85	14.80	14.02	13.53
• Age	44.80	45.24	45.53	45.32	45.15
• Retirement Age	58.11	58.16	58.20	58.26	58.25
(6) Other Averages for					
Retirees ¹					
• Retirement Age	58.30	58.20	58.08	58.04	58.04
• Attained Age	67.83	68.07	68.20	68.23	68.47
(7) New Retirees ¹					
• Number	77	65	84	79	72
• Avg. Ret. Age	58.37	57.21	57.54	58.83	58.86

¹ Excluding survivors, alternates payees and Prudential retirees.

HEI RETIREMENT PLAN: Asset Cashflow -- Benefits/Expenses vs. Contributions

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Year	Benefit Payments	Expenses	Total Outflow	Contributions
1983	\$7,727,921	\$595,732	\$8,313,653	\$11,216,682
1984	8,425,853	788,984	9,185,837	12,805,408
1985	9,348,239	808,284	10,156,523	14,897,995
1986	9,854,667	1,244,370	11,099,037	13,270,851
1987	10,952,776	1,349,961	12,302,737	11,427,900
1988	11,682,400	1,435,395	13,297,785	11,288,571
1989	13,038,957	1,225,823	14,264,780	12,116,098
1990	14,291,392	288,721	14,578,103	13,634,014
1991	15,511,597	298,568	15,808,163	14,673,223
1992	14,439,855	473,369	14,912,924	15,848,276
1993	14,707,192	298,704	15,005,896	15,382,275
1994	15,944,488	290,706	16,135,204	18,297,071
1995	17,049,697	441,705	17,491,373	12,828,124
1996	19,121,957	3,619,241 (all expenses)	22,741,198	12,078,628
1997	21,148,578	3,874,287	25,022,865	10,471,017
1998	23,214,588	3,949,868	27,164,456	4,098,291
1999	27,101,804	3,774,238	30,876,042	-
2000	30,138,225	5,478,911	35,615,136	-
2001	31,784,780	4,488,768	36,271,578	-
2002	33,467,894	3,990,328	37,458,222	-
2003	33,994,987	2,917,908	36,912,895	22,851,446
2004	38,375,936	3,102,484	41,478,420	28,380,429
2005	40,308,616	3,198,236	43,476,851	7,800,000

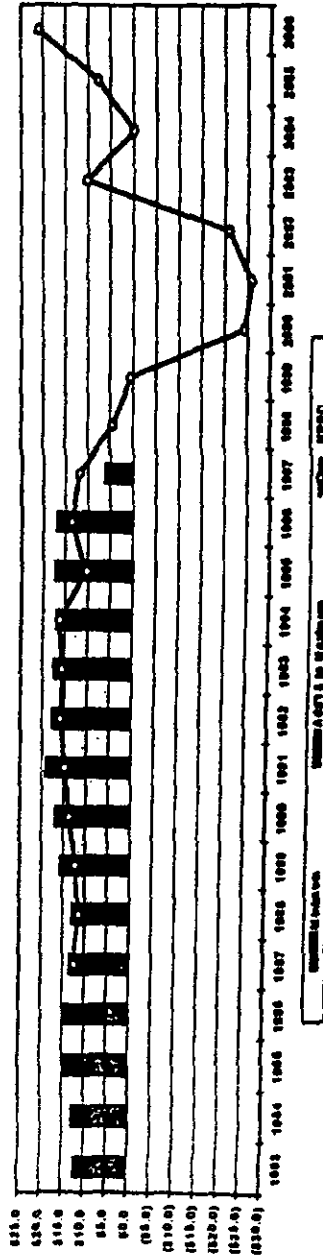


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HEI RETIREMENT PLAN: Range of Contributions / Pension Cost

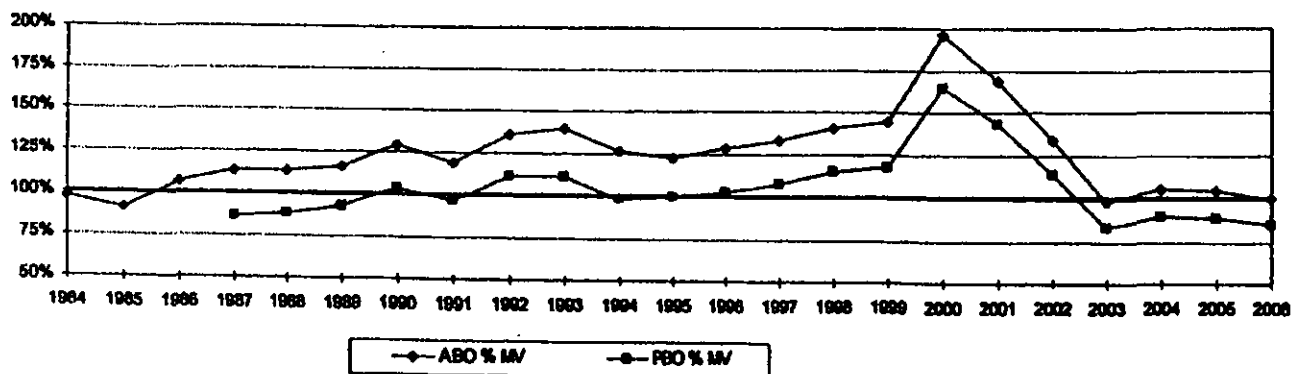
Year	Minimum	% Pay	Traditional Maximum	% Pay	NPPC	Funding %	NPPC %	LTR
1983	\$8,857,469	17.78 %	\$12,074,789	24.23 %		8.50%		
1984	8,043,897	16.40	12,805,408	23.48		8.50		
1985	7,886,465	13.12	14,897,985	23.50		7.50		
1986	5,013,921	7.88	15,048,803	23.66		7.50		
1987	2,358,790	3.39	13,457,144	19.36	\$12,438,173	7.50	7.50 %	7.50%
1988	954,971	1.33	12,902,038	17.03	11,289,571	7.50	8.00	8.00
1989	2,343,894	3.10	16,737,919	20.80	12,118,098	7.50	8.50	8.00
1990	4,131,155	5.03	18,980,701	20.65	13,482,767	7.50	8.50	8.00
1991	2,981,472	3.47	19,116,883	22.38	14,873,223	7.50	8.50	8.00
1992	98,509	0.11	17,894,286	19.33	15,948,276	7.50	8.50	8.00
1993	-	0.00	17,485,271	17.11	15,392,275	7.50	8.50	8.00
1994	-	0.00	16,987,728	15.40	16,297,071	7.50	7.00	8.00
1995	-	0.00	17,390,076	15.10	10,176,000	7.50	8.00	9.00
1996	-	0.00	17,032,401	14.30	13,488,828	7.50	7.00	9.00
1997	-	0.00	8,124,084	5.10	11,711,841	7.50	7.00	9.00
1998	-	0.00	-	0.00	4,412,298	8.50	7.00	10.00
1999	-	0.00	-	0.00	488,402	8.50	8.50	10.00
2000	-	0.00	-	0.00	(24,477,014)	8.50	7.76	10.00
2001	-	0.00	-	0.00	(28,001,019)	8.50	7.89	10.00
2002	-	0.00	-	0.00	(20,874,012)	8.50	7.28	10.00
2003	-	0.00	-	0.00	10,181,369	8.50	6.75	9.00
2004	-	0.00	-	0.00	(81,928)	8.50	6.25	9.00
2005	-	0.00	-	0.00	7,858,767	8.50	6.00	9.00
2006	-	0.00	-	0.00	20,983,709	8.50	5.75	9.00



HEI RETIREMENT PLAN: Funded Status of Plan at January 1

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January 1	ABO	% MV	PBO	% MV	MV Assets (Incl. accrued contribution)	Discount Rate
1984	\$135,119,936	97%			\$131,409,160	6.6%
1985	157,674,223	91			143,268,159	7.5
1986	171,367,476	107			182,896,619	7.5
1987	186,610,209	113	\$248,856,364	66%	211,478,855	7.5
1988	188,609,345	113	242,445,900	68	213,101,234	8.0
1989	194,380,013	116	243,894,834	93	228,238,485	8.5
1990	214,398,321	129	267,186,481	103	276,436,920	8.5
1991	231,514,574	119	286,120,866	96	274,375,983	8.5
1992	256,646,112	136	313,812,324	111	348,217,338	8.5
1993	248,083,673	140	310,036,929	112	346,453,246	8.5
1994	321,196,796	126	410,560,447	98	403,648,477	7.0
1995	318,757,290	123	392,918,088	100	393,838,695	8.0
1996	382,611,748	128	476,403,204	103	489,394,708	7.0
1997	409,476,670	133	504,888,667	108	546,584,301	7.0
1998	433,697,661	141	531,279,754	115	610,279,250	7.0
1999	475,336,050	144	582,334,767	118	684,687,066	6.5
2000	437,881,107	198	520,075,906	185	659,274,690	7.75
2001	472,711,553	169	559,317,804	143	800,623,788	7.50
2002	514,105,202	134	605,228,702	114	687,767,720	7.25
2003	571,689,957	98	674,607,195	83	560,257,888	6.75
2004	651,772,869	106	764,492,928	90	690,069,718	6.25
2005	692,379,836	105	814,817,520	89	728,154,539	6.00
2006	745,684,434	100	878,829,001	85	747,265,486	5.75



HEI RETIREMENT PLAN: Investment Return (net of expenses) 59

Plan Year	Market Value	Actuarial Valuation	Market Related Value
1974	-7.47 %	4.74 %	
1975	14.69	4.83	
1976	9.18	-1.54	
1977	3.42	5.12	
1978	6.47	6.75	
1979	11.91	6.97	
1980	13.61	12.31	
1981	8.10	11.63	
1982	20.27	10.60	
1983	14.32	15.06	
1984	5.06	5.97	
1985	23.65	13.77	
1986	13.78	19.44	
1987	0.55	13.15	3.17 %
1988	6.69	0.58	4.34
1989	22.00	9.35	6.32
1990	-1.67	0.78	3.42
1991	26.93	13.48	8.81
1992	4.20	23.51	12.06
1993	16.16	11.62	27.58
1994	-2.77	11.27	10.49
1995	26.47	8.86	7.60
1996	13.92	11.27	13.06
1997	15.23	13.49	14.09
1998	16.38	15.03	15.23
1999	30.10	25.18	28.31
2000	-3.32	15.03	11.85
2001	-10.26	13.45	5.04
2002	-13.90	-14.69	-14.52
2003	23.30	2.29	22.89
2004	10.13	8.67	2.58
2005	7.38	8.68	0.69
Latest 5 Year Average	2.41	3.18	2.85
Latest 10 Year Average	6.03	9.36	9.29
All Years Average	9.57	9.32	9.20

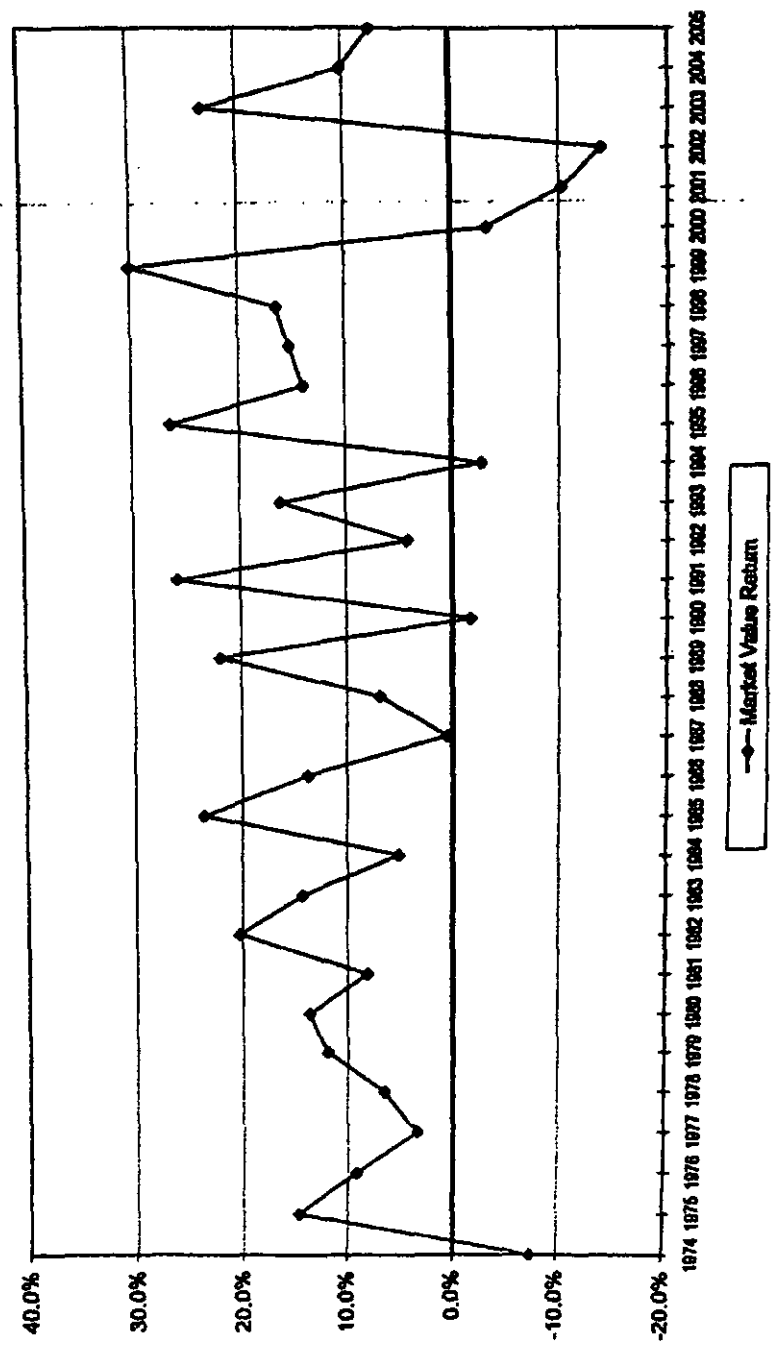
Note: 1993 and later years are net of investment expenses only (i.e., not administrative expenses)

1 includes method change

W

W

HEI RETIREMENT PLAN: Investment Return (net of expenses)





CA-IR-488

Ref: HELCO Response to CA-IR-51, Attachment 2; EPM Proposal dated 6/9/2004.

The Table of Contents for this Confidential Attachment (on page 3) indicates that the full document consisted of 32 pages and Attachments A through E. However, your response provided only the first 8 pages. Please provide the remaining pages of the original document as well as any contracts and correspondence associated with the acceptance of the proposal.

HELCO Response:

See CA-IR-488 Attachment 1 for the complete version of CA-IR-51, Attachment 3. Attachment 1 is confidential and will be provided pursuant to Protective Order No. 22593, dated June 30, 2006. Because the requested information is voluminous, it is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information. The following agreements are also provided:

- Attachment 2 for the General Services Master Agreement between HELCO and Process Controls, Inc. dated June 9, 2004; and
- Attachment 3 for the executed service contract dated July 1, 2004 between HELCO and Process Controls, Inc. for the asset optimization services described in Attachment 1 of this information request.

The requested information is confidential and will be provided pursuant to Protective Order No. 22593, dated June 30, 2006. Because the requested information is voluminous, it is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information.





CA-IR-491

Ref: HELCO Response to CA-IR-381(b), Hill Plant Demineralizer O&M Savings.

The response provides a comparison of "Estimated Evaporator Costs" to "Estimated RO/EDI Costs." Please provide the following information:

- a. For each of the "Estimated Evaporator costs" amounts, please explain where such costs are included within the Company's asserted O&M expenses, by NARUC Account and with workpaper references.
- b. Provide supporting workpapers, calculations and supporting documentation for each of the cost amounts shown in the data table provided in response to part (b).

HELCO Response:

- a. The "Estimated Evaporator costs" amounts were not specifically budgeted, and thus there are no workpapers showing where they would be recorded. Actual evaporator costs are included throughout Hill plant's operation and maintenance NARUC Accounts, as seen in HELCO-WP-101(C) as follows:

Operation

500220 SUPERVIS & ENGINEERING
502220 STEAM EXPENSES
505220 ELECTRICAL EXPENSES
506220 MISC STEAM POWER EXP

Maintenance

510220 SUPERVIS & ENGINEERING
511220 STRUCTURES
512220 BOILER PLANT
513220 ELECTRIC PLANT
514220 MISC STEAM PLANT

See table below and Attachment 1 for workpapers, calculations and supporting documentation for each of the cost amounts shown in the data table provided in response to CA-IR-381(b).

Attachment 1 is confidential and will be provided pursuant to Protective Order No. 22593, dated June 30, 2006. Because the requested information is voluminous, it is available for inspection at

HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information.

Evaporator (Status Quo) vs. RO/EDI Estimated O&M Cost

ESTIMATED ANNUAL COST	Estimated Evaporator Costs	See CA-IR-491 Attachment 1	Estimated RO/EDI Costs	See CA-IR-491, Attachment 1
Annual Fuel Cost	\$128,940	Page 27	-	
Additional Puna Operation Cost	\$92,000	100 hours times 52 weeks times \$17.69/hr = \$92,000 rounded*	-	
Operations and Maintenance - Annual	\$20,000	Page 26	\$23,700	Page 29 \$23,712 rounded down to \$23,700
Additional Water Trucking Cost	\$95,000	Pages 5-6 2,686,000 gallons/5,000 gallons per load X \$180 delivery cost = \$96,696 rounded down to \$95,000	-	
Chemical Costs	\$10,000	Page 39	\$1,500	Page 29 \$1,512 rounded down to \$1,500
Aux Power Costs	-		\$22,000*	Page 30 \$21,771 rounded up to \$22,000
TOTAL ESTIMATED ANNUAL COST	\$345,940		\$47,200	

Note *Per Assistant Superintendent of the Power Plant, to produce additional water at Puna to support Hill, it would require on average approximately 80 to 120 hours/week of operator hours at Puna. For this analysis, used the midpoint of 100 hours per week.

The requested information is confidential and will be provided pursuant to Protective Order No. 22593, dated June 30, 2006. Because the requested information is voluminous, it is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information.

